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# (12)

### **EUROPEAN PATENT APPLICATION**

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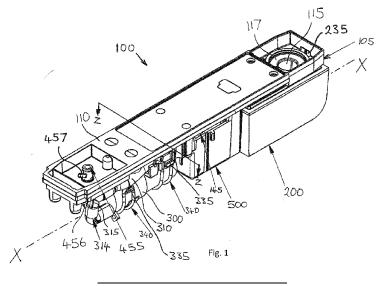
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# (54) CONDENSATE PUMP ASSEMBLY & CONTROL METHODS

(57) The present disclosure comprises a method of controlling a condensate pump assembly which comprises a pump and a controller connected to the pump, the method comprising measuring a current value drawn by the pump, comparing the measured current value to a predetermined threshold current value and controlling

operation of the condensate pump assembly based on the current value comparison. Also provided is a condensate pump assembly for use in an air conditioning system, comprising a housing comprising an upper housing portion and a pump arranged to pump liquid from a liquid inlet to a liquid outlet.





# 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

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		ERED TO BE RELEVANT		
Category	Citation of document with in of relevant pass	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
ĸ	CN 109 539 460 A (G	REE ELECTRIC APPLIANCES	1-10 15	INV.
-	· ·	th 2019 (2019-03-29)	1 10,10	F24F13/22
	* the whole documen	· · · · · · · · · · · · · · · · · · ·		F24F13/24
				F04B49/06
ς	DE 10 2009 035276 A	1 (SPINFLOW GMBH [DE])	1	F04D15/00
	10 February 2011 (2	011-02-10)		F04D15/02
		- paragraph [0023] *		
	* abstract; figures	* <b>*</b>		
ĸ	EP 2 808 548 B1 (AS	KOLL HOLDING S R L A	1	
	SOCIO UNICO [IT])			
	26 July 2017 (2017-			
		- paragraph [0080] *		
	* abstract; figures	; <b>*</b>		
				TECHNICAL FIELDS SEARCHED (IPC)
				F24F
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		application, or one or more of its claims, does earch (R.62a, 63) has been carried out.	i/do	
Claims se	earched completely :			
Claims se	earched incompletely :			
Claims no	ot searched :			
Reason fo	or the limitation of the search:			
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	Place of search	Date of completion of the search		Examiner
	Munich	24 October 2023	Mat	tias Grenbäck
С	ATEGORY OF CITED DOCUMENTS	T : theory or principle E : earlier patent doc		
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### INCOMPLETE SEARCH SHEET C

**Application Number** 

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Claim(s) searched incompletely:

Claim(s) completely searchable:

Claim(s) not searched:

1-10

11-14

Reason for the limitation of the search:

- The search has furthermore been restricted to the subject-matter of claims 1-10 and 15 (partially) as indicated by the applicant in his letter of 06.09.2023 filed in reply to the invitation pursuant to Rule 62a(1) and/or Rule 63(1) EPC. The applicant indicated in his letter to elect claims 1 and 22, claim 22 was however deemed abandoned (see communication of 12.06.2023).
- The applicant argues that the originally filed independent claims (method claims 1, 11 and 13, all other independent claims abandoned) comply with Rule 43(2) EPC since they constitute a group of inventions linked to form a general inventive concept.
- 2.1 This cannot be followed, since under Article 84 in combination with Rule 43(2) EPC, an application may contain more than one independent claim in a particular category only if the subject-matter claimed falls within one or more of the exceptional situations set out in paragraph (a), (b) or (c) of Rule 43(2) EPC. This is not the case in the present application.

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

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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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-10-2023

10	cit	Patent document ted in search report		Publication date	Patent family member(s)	Publication date
	CN	109539460	A	29-03-2019	NONE	
15	DE	102009035276	A1		DE 102009035276 A1 WO 2011012304 A1	10-02-2011 03-02-2011
	EP	2808548	в1 	26-07-2017	NONE	
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82