

Title (en)  
METHOD AND SYSTEM FOR DETECTING A FAILURE IN HVAC SYSTEM

Title (de)  
VERFAHREN UND SYSTEM ZUR FEHLERERKENNUNG IN EINEM HLK-SYSTEM

Title (fr)  
PROCÉDÉ ET SYSTÈME DE DÉTECTION DE DÉFAILLANCE DE SYSTÈME CVC

Publication  
**EP 3821176 B1 20240508 (EN)**

Application  
**EP 19745011 A 20190702**

Priority  
• CN 201810744283 A 20180709  
• US 2019040217 W 20190702

Abstract (en)  
[origin: WO2020014033A1] The invention relates to a method, a system and a storage for detecting a fault of a HVAC system. The method comprises the steps of: obtaining room air temperatures and compressor equivalent runtime during the operation of the HVAC system; calculating a rate of change per unit time of the room air temperatures within the compressor equivalent runtime; and determining whether a fault occurs in the HVAC system based on a change in the rate of change per unit time of the room air temperatures. The invention can be applied to a HVAC system for an on-line fault detection, which is able to effectively detect a series of faults and may output information such as an alert to help to increase the security and the user satisfaction of the HVAC system.

IPC 8 full level  
**F24F 11/38** (2018.01); **F24F 110/10** (2018.01)

CPC (source: CN EP US)  
**F24F 11/38** (2018.01 - CN EP US); **F24F 11/58** (2018.01 - US); **F24F 11/64** (2018.01 - CN US); **F24F 2110/10** (2018.01 - CN EP US); **F24F 2140/50** (2018.01 - CN US)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2020014033 A1 20200116**; CN 110701727 A 20200117; CN 110701727 B 20230317; EP 3821176 A1 20210519; EP 3821176 B1 20240508; US 2021199325 A1 20210701

DOCDB simple family (application)  
**US 2019040217 W 20190702**; CN 201810744283 A 20180709; EP 19745011 A 20190702; US 201917058411 A 20190702