

Title (en)

HVAC SYSTEM AIR FILTER DIAGNOSTICS AND MONITORING

Title (de)

LUFTFILTERDIAGNOSE UND -ÜBERWACHUNG FÜR HLK-SYSTEM

Title (fr)

DIAGNOSTICS ET SURVEILLANCE DE FILTRE À AIR DE SYSTÈME DE CVCA

Publication

EP 3143343 A4 20180110 (EN)

Application

EP 15792815 A 20150514

Priority

- US 201461993552 P 20140515
- US 2015030854 W 20150514

Abstract (en)

[origin: CN106461252A] A system and method for monitoring a heating, ventilation, or air conditioning (HVAC) system of a building is provided. A monitoring server, located remotely from the building, receives operating parameter data from a monitoring device at the building that measures an operating parameter of the HVAC system. The monitoring server generates a plurality of data clusters from the operating parameter data, each data cluster corresponding to operating parameter data generated during steady-state operation of the HVAC system. The monitoring server calculates an average operating parameter value for each data cluster. The monitoring server calculates normalized operating parameter values based on normalizing the average operating parameter values for the data clusters over a predetermined normalization time period. The monitoring server compares the normalized operating parameter values with a threshold. The monitoring server determine whether an air filter of the HVAC system needs to be replaced based on the comparison and generates a notification based on the determination indicating that the air filter needs to be replaced.

IPC 8 full level

F24F 11/00 (2018.01); **G05B 23/02** (2006.01); **G06K 9/62** (2006.01); **G08B 21/18** (2006.01)

CPC (source: EP US)

F24F 11/30 (2017.12 - EP US); **F24F 11/62** (2017.12 - US); **G05B 15/02** (2013.01 - US); **G05B 23/0283** (2013.01 - EP); **F24F 11/39** (2017.12 - EP); **F24F 11/47** (2017.12 - EP); **F24F 11/52** (2017.12 - EP); **F24F 11/64** (2017.12 - EP); **G05B 23/0224** (2013.01 - EP); **G05B 23/0232** (2013.01 - EP); **G05B 2219/2614** (2013.01 - EP); **G05B 2219/32234** (2013.01 - EP); **G08B 21/18** (2013.01 - EP); **H04Q 2209/823** (2013.01 - EP)

Citation (search report)

- [I] WO 2012118550 A1 20120907 - CARRIER CORP [US], et al
- [I] US 2012259583 A1 20121011 - NOBOA HOMERO L [US], et al
- See references of WO 2015175821A1

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

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CN 106461252 A 20170222; CN 106461252 B 20190716; EP 3143343 A1 20170322; EP 3143343 A4 20180110

DOCDB simple family (application)

CN 201580034239 A 20150514; EP 15792815 A 20150514