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(54) Title: RESIDENTIAL SOLUTIONS HVAC MONITORING AND DIAGNOSIS

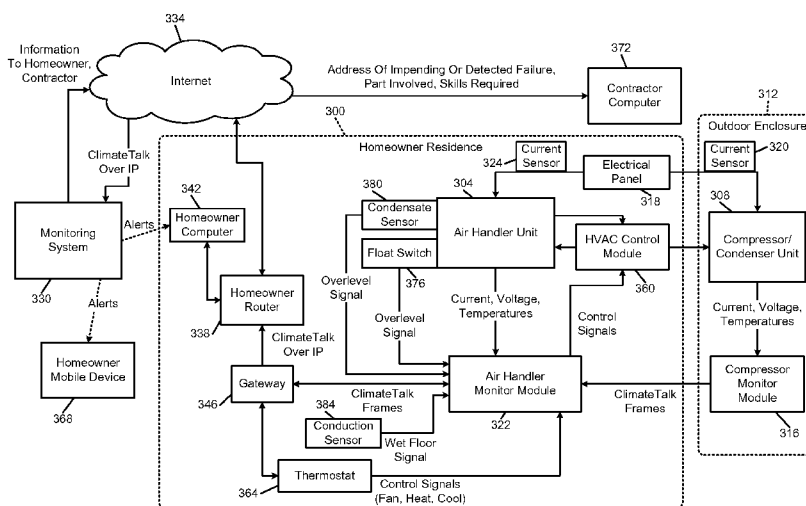


FIG. 2

(57) Abstract: A monitoring system for a heating, ventilation, and air conditioning (HVAC) system of a residence includes a monitoring device installed at the residence and a server located remotely from the residence. The monitoring device measures an aggregate current supplied to a plurality of components of the HVAC system and transmits current data based on the measured aggregate current. The server receives the transmitted current data and, based on the received current, assesses whether a failure has occurred in a first component of the plurality of components of the HVAC system and assesses whether a failure has occurred in a second component of the plurality of components of the HVAC system.

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A. CLASSIFICATION OF SUBJECT MATTER*F24F 11/02(2006.01)i, H04L 12/12(2006.01)i*

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)

F24F 11/02; G05B 11/01; G01R 31/02; G01R 31/34

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: heating, ventilation, conditioning, server, monitoring

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 63-302238 A (NEC CORP) 09 December 1988 See claim 1, fig.1	1-22
A	KR 10-1998-0036844 A (SAM SUNG HEAVY INDUSTRIE CO.) 05 August 1998 See page 3 lines 1-23, fig.2	1-22
A	US 2009-0072985 A1 (PATEL SHWETAK N. et al.) 19 March 2009 See paras.90-91, fig. 1	1-22
A	US 7075327 B2 (STEVEN A. DIMINO et. al) 11 July 2006 See columns 5-7, fig.1-4	1-22

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 63-302238 A	09.12.1988	None	
KR 10-1998-0036844 A	05.08.1998	None	
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US 7075327 B2	11.07.2006	US 2005-0007096 A1	13.01.2005
		US 2006-0196265 A1	07.09.2006
		US 7336455 B2	26.02.2008