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- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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(54) **Title:** CONSTANT AIRFLOW CONTROL OF A VENTILATION SYSTEM

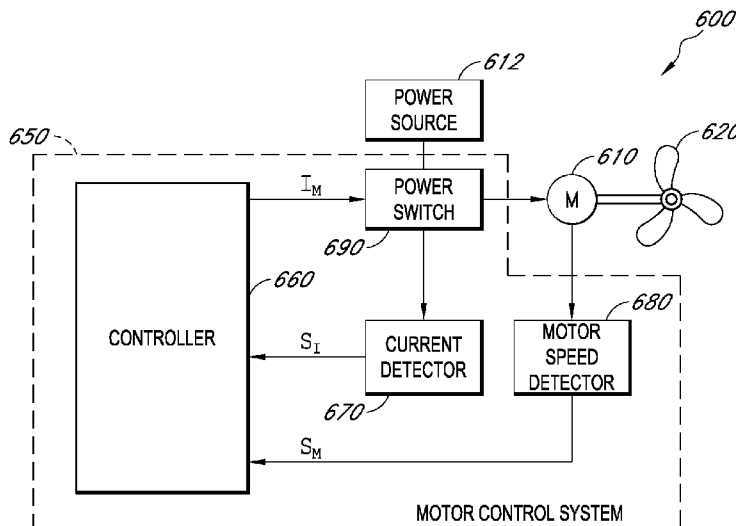


FIG. 6A

(57) **Abstract:** A ventilation system for providing a substantially constant airflow is disclosed. In one embodiment, a ventilation system includes: a duct; a fan (620) configured to generate an airflow through the duct; a motor (610) configured to drive the fan (620); an electric current detector (670) configured to detect an electric current provided to the motor (610) and to generate a current feedback signal; a motor speed detector (680) configured to detect a rotational speed of the motor (610) and to generate a speed feedback signal; and a controller (660) configured to determine in which speed range among a plurality of speed ranges the speed of the motor (610) is, based at least partly on the speed feedback signal. The controller (660) is further configured to change the electric current by a compensation amount pre-assigned to the determined speed range so as to reach a target value.

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**A. CLASSIFICATION OF SUBJECT MATTER***F24F 11/02(2006.01)i, F24F 13/02(2006.01)i, F24F 7/06(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; F25B 39/04; A62B 7/00; F25D 17/00; B60H 1/00; A61M 16/00; G05D 23/19; F24F 11/053

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) &amp; Keywords: motor, adjust, airflow, speed

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0051306 A1 (NISSAN MOTOR CO., LTD.) 12 May 1982 See Abstract, Claims 1, 6	1-3, 5, 7-11, 14-18 , 23-27
Y	US 2002-0026801 A1 (YUTAKA YAMASHITA) 07 March 2002 See Pages 1-2, Claims 1-3	1-3, 5, 7-11, 14-18 , 23-27
A	JP 08-014637 A (-) 19 January 1996 See	1-27
A	US 2006-0065270 A1 (KUN LI) 30 March 2006 See	1-27

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

\* Special categories of cited documents:

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2010/027854**

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