

Title (en)  
ELECTRIC CLEANER

Title (de)  
ELEKTRISCHER REINIGER

Title (fr)  
SYSTEME DE NETTOYAGE ELECTRIQUE

Publication  
**EP 1870010 A4 20080723 (EN)**

Application  
**EP 06729499 A 20060320**

Priority  

- JP 2006305531 W 20060320
- JP 2005088436 A 20050325
- JP 2005088437 A 20050325

Abstract (en)  
[origin: US2007061997A1] In an electric vacuum cleaner including a communicating tube forming an air trunk which communicates to a suction opening which suctions dust and a vacuum cleaner main body having a communicating tube attachment member attaching the communicating tube, a strain gauge is attached to a floor surface side of the communicating tube attachment member. This strain gauge is connected to one side of a resistor bridge circuit. Tension acts on the strain gauge due to an operation of the communicating tube during the cleaning so that an output is generated at the resistor bridge circuit. After being amplified, this output is differentiated in a condenser. This differentiated voltage signal is compared to a threshold level voltage in a comparator. A running motor is driven only in a period that the voltage signal exceeds the threshold level voltage.

IPC 8 full level  
**A47L 9/28** (2006.01); **A47L 9/00** (2006.01); **G01L 1/00** (2006.01)

CPC (source: EP US)  
**A47L 5/362** (2013.01 - EP US); **A47L 9/009** (2013.01 - EP US); **A47L 9/248** (2013.01 - EP US); **A47L 9/2805** (2013.01 - EP US); **A47L 9/2842** (2013.01 - EP US); **A47L 9/2857** (2013.01 - EP US); **A47L 9/2884** (2013.01 - EP US); **A47L 9/2889** (2013.01 - EP US)

Citation (search report)  

- [X] EP 0389459 A2 19900926 - TRANSITIONS RESEARCH CORP [US]
- [X] JP H0435630 A 19920206 - MATSUSHITA ELECTRIC IND CO LTD
- [X] EP 0319700 A1 19890614 - SIEMENS AG [DE]
- [A] JP S62117517 A 19870529 - TOKYO ELECTRIC CO LTD
- [E] DE 102006008556 B3 20070802 - MIELE & CIE [DE] & EP 0572930 A1 19931208 - SIEMENS AG [DE]
- See references of WO 2006103973A1

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**US 2007061997 A1 20070322**; EP 1870010 A1 20071226; EP 1870010 A4 20080723; JP 4782684 B2 20110928; JP WO2006103973 A1 20080904; WO 2006103973 A1 20061005

DOCDB simple family (application)  
**US 60275106 A 20061121**; EP 06729499 A 20060320; JP 2006305531 W 20060320; JP 2006529375 A 20060320