

Title (en)

Filter with use indicator, and vacuum cleaner with such a filter

Title (de)

Filter mit Verbrauchsindikator, und Staubsauger mit einem solchen Filter

Title (fr)

Filtre avec indicateur d'utilisation, et aspirateur doté d'un tel filtre

Publication

EP 2386237 B1 20190320 (DE)

Application

EP 11401061 A 20110413

Priority

DE 102010016788 A 20100505

Abstract (en)

[origin: EP2386237A2] The filter (40) has a display device (42) loaded with filtered air from a filtered material. The display device is connected at sides of filtering media (44, 46) for extending from a filter inlet side (48) to a filter output side (50). The display device includes an air path (52) starting from the filter inlet side, and is covered with a viewing window (54) on the filter outlet side. A flow-through usage indicator (56) is arranged in the air path and viewable beneath the viewing window on the filter outlet side. A display unit is arranged at a vacuum cleaner.

IPC 8 full level

A47L 9/19 (2006.01)

CPC (source: EP US)

A47L 9/122 (2013.01 - EP US); **A47L 9/19** (2013.01 - EP 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)

EP 2386237 A2 201111116; EP 2386237 A3 20140521; EP 2386237 B1 20190320; DE 102010016788 A1 201111110;
DE 102010016788 B4 20120119; US 2011271479 A1 201111110; US 8539638 B2 20130924

DOCDB simple family (application)

EP 11401061 A 20110413; DE 102010016788 A 20100505; US 201113094869 A 20110427