

## Title (en)

Ecologically efficient device for vacuum cleaning

## Title (de)

Ökologisch effiziente Vorrichtung zum Staubsaugen

## Title (fr)

Dispositif efficace au plan écologique destiné à l'aspiration

## Publication

**EP 2502537 B1 20190102 (DE)**

## Application

**EP 11007089 A 20110831**

## Priority

- EP 11002361 A 20110322
- EP 11007089 A 20110831

## Abstract (en)

[origin: EP2502536A1] The device has a vacuum cleaning unit and a filter bag (66) exhibiting fixed dovetail folds, where the device exhibits quality factor during unfilling of the bag. The quality factor is defined by low pressure according to EN 60312, low pressure in a filter bag receiving space (68) in kilopascal during unfilling of the bag and separation degree of filter bag material larger than 30 percentage. The device exhibits the quality factor during partial filling of the bag, where the latter quality factor is defined by the low pressure and the separation degree larger than 17 percentage.

## IPC 8 full level

**A47L 9/00** (2006.01); **A47L 9/14** (2006.01); **A47L 9/28** (2006.01)

## CPC (source: EP US)

**A47L 9/14** (2013.01 - EP US); **A47L 9/1427** (2013.01 - US)

## Citation (examination)

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## Citation (opposition)

Opponent : Dr. Tarek Khartabil,

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- ANONYM: "Staub für den Hausgebrauch - Trockensauger - Prüfverfahren zur Bestimmung der Gebrauchseigenschaften (IEC 59F/188/CDV:2009); Deutsche Fassung FprEN 60312-1:2009", DEUTSCHE NORM, 1 December 2009 (2009-12-01), pages 1 - 68, XP055678217
- ANONYM: "gebrauchsanleitung kobold 140 staubsauger", VORWEK, 1 October 2010 (2010-10-01), pages 1 - 48, XP055804942
- ANONYMOUS: "CERTITEST® AUTOMATED FILTER TESTERS MODELS 8127 AND 8130", TSI, 1 January 2010 (2010-01-01), pages 1 - 4, XP055804947, Retrieved from the Internet <URL:https://www.tsi.com/getmedia/05b5cb92-d6bb-4bb7-862f-59587ba52ffd/8127-8130\_5001474\_A4\_WEB?ext=.pdf> [retrieved on 20210517]
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Opponent : Wolf PVG GmbH & Co. KG

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## 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 2502536 A1 20120926; EP 2502536 B1 20190102**; AU 2012230640 A1 20131003; AU 2012230640 B2 20170202; AU 2012230641 A1 20131003; AU 2012230641 B2 20161201; AU 2012230641 C1 20170330; BR 112013024113 A2 20161213; BR 112013024203 A2 20161213; CN 103547201 A 20140129; CN 103547201 B 20160622; CN 103648347 A 20140319; CN 103648347 B 20160608; DK 2502536 T3 20190401; DK 2502537 T3 20190408; EP 2502537 A1 20120926; EP 2502537 B1 20190102; ES 2713045 T3 20190517; ES 2713074 T3 20190517; JP 2014509903 A 20140424; JP 2014512901 A 20140529; NZ 615443 A 20151030; NZ 615445 A 20151030; PL 2502536 T3 20190628; PL 2502537 T3 20190628; RU 2013141963 A 20150427; RU 2013141967 A 20150427; US 2014068889 A1 20140313; US 2014075713 A1 20140320; US 9713409 B2 20170725; US 9877627 B2 20180130; WO 2012126616 A1 20120927; WO 2012126616 A8 20140103; WO 2012126617 A1 20120927

## DOCDB simple family (application)

**EP 11007088 A 20110831**; AU 2012230640 A 20120321; AU 2012230641 A 20120321; BR 112013024113 A 20120321;  
BR 112013024203 A 20120321; CN 201280024960 A 20120321; CN 201280025050 A 20120321; DK 11007088 T 20110831;  
DK 11007089 T 20110831; EP 11007089 A 20110831; EP 2012001240 W 20120321; EP 2012001241 W 20120321;  
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