

Title (en)
Battery powered cordless vacuum cleaner

Title (de)
Batteriegetriebener schnurloser Staubsauger

Title (fr)
Aspirateur sans fil alimenté par batterie

Publication
EP 2337485 B1 20160921 (EN)

Application
EP 09821342 A 20091016

Priority

- US 2009061054 W 20091016
- US 32636808 F 20081016
- US 32636408 F 20081016
- US 32636208 F 20081016
- US 10589608 P 20081016
- US 10589108 P 20081016
- US 40503309 A 20090316
- US 10589908 P 20081016

Abstract (en)
[origin: WO2010045588A1] A cordless, battery-powered system of cleaning products. The system of cleaning products includes devices such as upright vacuums (e.g., a stick vacuum, a lightweight upright vacuum, etc.), a hand-held vacuum, a carpet-cleaner, a canister vacuum, and the like. Each of the devices is powered by a battery pack which is interchangeable among the devices. The battery pack includes a combination of hardware and software for connecting to, identifying, and communicating with the cleaning products to ensure that each of the products receives the power necessary to ensure optimal performance.

IPC 8 full level
A47L 5/00 (2006.01); **A47L 9/00** (2006.01); **A47L 9/28** (2006.01)

CPC (source: EP)
A47L 9/00 (2013.01); **A47L 9/0063** (2013.01); **A47L 9/2857** (2013.01); **A47L 9/2873** (2013.01); **A47L 9/2884** (2013.01); **A47L 9/2889** (2013.01); **A47L 9/2894** (2013.01)

Citation (opposition)
Opponent : Alfred Karcher GmbH and Co.KG

- GB 2405787 A 20050316 - MILWAUKEE ELECTRIC TOOL CORP [US]
- US 6456035 B1 20020924 - CRISP ROBERT [US], et al
- EP 1498999 A2 20050119 - TOSHIBA TEC KK [JP]
- JP 2001321310 A 20011120 - HITACHI LTD
- JP 2003038403 A 20030212 - MITSUBISHI ELECTRIC CORP, et al
- US 2004134016 A1 20040715 - KISELA DAVID [US], et al
- US 2006164032 A1 20060727 - JOHNSON TODD W [US], et al
- EP 0401531 A2 19901212 - NAT UNION ELECTRIC CORP [US]
- US 2008040883 A1 20080221 - BESKOW JONAS [SE], et al
- GB 2442033 A 20080326 - DYSON TECHNOLOGY LTD [GB]
- GB 2433424 A 20070627 - ZWEITA INTERNAT CO LTD [BN]
- WO 2007117196 A1 20071018 - ELECTROLUX AB [SE], et al
- EP 0523891 A1 19930120 - BLACK & DECKER INC [US]
- EP 1752076 A1 20070214 - BLACK & DECKER INC [US]
- EP 0553097 A1 19930804 - CARNEGIE GROUP [US]

Designated contracting state (EPC)
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 SE SI SK SM TR

DOCDB simple family (publication)
WO 2010045588 A1 20100422; CN 102256522 A 20111123; CN 109528080 A 20190329; CN 109528080 B 20210730;
EP 2337485 A1 20110629; EP 2337485 A4 20130904; EP 2337485 B1 20160921; EP 3132730 A1 20170222; EP 3132730 B1 20191016

DOCDB simple family (application)
US 2009061054 W 20091016; CN 200980150929 A 20091016; CN 201811197063 A 20091016; EP 09821342 A 20091016;
EP 16181499 A 20091016