

Title (en)

Centrifugal fan and vacuum cleaner having the centrifugal fan

Title (de)

Zentrifugalgebläse und Staubsauger umfassend ein solches Zentrifugalgebläse

Title (fr)

Soufflante centrifuge et aspirateur comportant une telle soufflante centrifuge

Publication

EP 1627590 A3 20060621 (EN)

Application

EP 05291656 A 20050803

Priority

KR 20040063904 A 20040813

Abstract (en)

[origin: EP1627590A2] A centrifugal fan (12) includes: a driving motor (58) for generating a rotational force; an impeller (62) connected with the driving motor by a rotational shaft (60) and generating an air blowing force; a diffuser (80) disposed at an outer circumferential surface of the impeller and increasing a constant pressure of air sent from the impeller; a partition plate (82) installed inside an impeller casing (52); and a rear vane (84) formed at a lower surface of the partition plate and guiding air discharged from the diffuser so as to pass through the driving motor. The diffuser is formed such that each blade (80a) is sloped downward from an inlet towards an outlet. Namely, two adjacent diffuser blades form an air flow path therebetween with each diffuser blade having a relatively greater width at an air inlet portion compared to the width at an air outlet portion. A pressure loss can be reduced and a suction force and efficiency of the fan can be enhanced.

IPC 8 full level

A47L 5/22 (2006.01)

CPC (source: EP KR)

A47L 5/22 (2013.01 - EP KR); **A47L 9/22** (2013.01 - EP KR); **F04D 29/444** (2013.01 - KR)

Citation (search report)

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- [X] WO 9719629 A1 19970605 - NILFISK A S [DK], et al
- [Y] EP 0385298 A2 19900905 - HITACHI LTD [JP]
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- [A] US 4679990 A 19870714 - YAMAURA IZUMI [JP], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 009, no. 025 (M - 355) 2 February 1985 (1985-02-02)

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Designated contracting state (EPC)

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EP 1627590 A2 20060222; **EP 1627590 A3 20060621**; **EP 1627590 B1 20091014**; CN 1734102 A 20060215; DE 602005017103 D1 20091126; KR 20060015073 A 20060216

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