

Title (en)

RADIAL FAN WITH AN INTERNAL SPIRAL

Publication

EP 0450272 A3 19911204 (DE)

Application

EP 91100984 A 19910125

Priority

DE 4009869 A 19900328

Abstract (en)

[origin: EP0450272A2] The invention relates to a radial fan (2), especially for delivering gaseous media. It comprises a housing (4) with a peripheral wall (6), a front (8) and a rear (10) end wall, an inlet opening (12) in the front end wall (8) and an outlet opening (14) in the peripheral wall (6). Inside the housing (4) a radial impeller wheel (20) is rotatably arranged about an axis of rotation (16), which wheel has a rear cover plate (24) with radial rotor blades (26) connected to a drive shaft (22) and a front cover plate (28) with a central admission opening (34) connected to the rotor blades on their side axially opposite the rear cover plate (24). An internal spiral chamber (36), open in the direction of the impeller wheel and passing into the outlet opening (14), is formed inside the housing (4) next to the impeller wheel (26). The front cover plate (28) of the impeller wheel (20) merges in its outer peripheral area via a dished and, seen in axial cross section, arched transitional area (52) into an outer annular web (54) extending essentially axially in the direction of the internal spiral chamber (36).

IPC 1-7

F04D 29/28; F04D 29/42; F04D 17/16

IPC 8 full level

F04D 17/16 (2006.01); **F04D 29/28** (2006.01); **F04D 29/42** (2006.01)

CPC (source: EP)

F04D 17/16 (2013.01); **F04D 29/281** (2013.01); **F04D 29/4233** (2013.01)

Citation (search report)

- [YD] EP 0316470 A1 19890524 - MULFINGEN ELEKTROBAU EBM [DE]
- [Y] GB 321847 A 19291121 - JAMES KEITH & BLACKMAN COMPANY, et al
- [A] US 2240653 A 19410506 - JENKINS CHARLES F, et al
- [A] FR 1244749 A 19601028 - SULZER AG
- [A] US 3638470 A 19720201 - OSTROGNAI ALLEN GILBERT
- [A] FR 2340509 A1 19770902 - PETZ ELEKTRO WAERME TECHN [DE]
- [A] FR 2335714 A1 19770715 - WEBASTO WERK BAIER KG W [DE]
- [A] GB 1416882 A 19751210 - HOTPOINT LTD

Cited by

US7191613B2; CN106884804A; DE202005004180U1; JP2003328991A; EP1361367A3; EP0546508A1; DE4143663B4; DE4141106C2; US8257034B2

Designated contracting state (EPC)

BE DE FR GB IT NL

DOCDB simple family (publication)

EP 0450272 A2 19911009; EP 0450272 A3 19911204; EP 0450272 B1 19940921; DE 4009869 A1 19911002; DE 59102983 D1 19941027

DOCDB simple family (application)

EP 91100984 A 19910125; DE 4009869 A 19900328; DE 59102983 T 19910125