

Title (en)

HOUSING WITH RECIRCULATION CONTROL FOR USE WITH BANDED AXIAL-FLOW FANS

Title (de)

GEHÄUSE MIT REZIRKULATIONSREGELUNG ZUR ANWENDUNG IN AXIALLÜFTER MIT ZARGE

Title (fr)

BOITIER A RECIRCULATION CONTROLEE POUR UTILISATION AVEC UN VENTILATEUR AXIAL A PALES ENTOUREES PAR UN ANNEAU CYLINDRIQUE

Publication

EP 0746689 B1 20020424 (EN)

Application

EP 94926638 A 19940830

Priority

- US 9409782 W 19940830
- US 11395293 A 19930830

Abstract (en)

[origin: WO9506822A1] Stationary flow control vanes (28) positioned to encounter and redirect recirculating airflow provide a surprising combination of efficiency, low noise, and manufacturability for shrouded, banded, axial fans (20) that are positioned in a housing (26). Such fan and housing combinations reduce swirl in recirculating airflow, so that the airflow entering the fan (which includes the recirculating airflow) is more ordered and fan performance is improved. It can also be applied to fans that blow air through a downstream heat exchanger (21). The invention is also suited for ducted fans.

IPC 1-7

F04D 29/54; **F04D 29/16**; **F04D 19/00**

IPC 8 full level

F04D 19/00 (2006.01); **F04D 29/16** (2006.01); **F04D 29/54** (2006.01)

CPC (source: EP)

F04D 19/002 (2013.01); **F04D 29/164** (2013.01); **F04D 29/545** (2013.01)

Cited by

DE102009012025A1; EP1914402A1; CN110050127A; EP3557077A4; US10731881B2; WO2014109970A1; EP2236788A1; US8573931B2

Designated contracting state (EPC)

AT BE DE ES FR GB IT LU NL SE

DOCDB simple family (publication)

WO 9506822 A1 19950309; AT E216757 T1 20020515; DE 69430488 D1 20020529; DE 69430488 T2 20021219; EP 0746689 A1 19961211; EP 0746689 A4 19980715; EP 0746689 B1 20020424; ES 2173121 T3 20021016; JP H09505375 A 19970527

DOCDB simple family (application)

US 9409782 W 19940830; AT 94926638 T 19940830; DE 69430488 T 19940830; EP 94926638 A 19940830; ES 94926638 T 19940830; JP 50822895 A 19940830