

Title (en)
CENTRIFUGAL BLOWER, METHOD OF MANUFACTURING THE SAME, AND AIR-CONDITIONER PROVIDED WITH THE SAME

Title (de)
ZENTRIFUGALGEBLÄSE, HERSTELLUNGSVERFAHREN DAFÜR SOWIE KLIMAANLAGE MIT EINEM SOLCHEM GEBLÄSE

Title (fr)
SOUFFLANTE RADIALE, PROCEDE DE FABRICATION, ET CONDITIONNEUR D'AIR EQUIPE DE CETTE SOUFFLANTE

Publication
EP 0942175 A1 19990915 (EN)

Application
EP 98944261 A 19980928

Priority
• JP 9804331 W 19980928
• JP 26540197 A 19970930

Abstract (en)
A centrifugal blower includes an impeller (10) having a hub (11), a shroud (12) disposed at a specified distance from the hub (11) in opposed relation thereto, and a plurality of vanes (13) extending between an outer periphery of the hub (11) and an outer periphery of the shroud (12) and arranged generally radially around an axis of the hub (11). Rear edges (13b) of the vanes (13) have a saw teeth configuration (20) zigzagged in the longitudinal direction of the vane (13) and extending widthwise of the vane (13). Therefore, in the rear edge (13b) a longer vane portion and a shorter vane portion alternately exist, so that a combined air current flow resulting from meeting of air current flowing along the pressure surface side with air current flowing along the negative pressure surface side is gradually performed stepwise over the entire length of the rear edge. Thus, pressure gradient and velocity loss of air current are reduced due to meeting of air currents at the rear edge (13b), with the result that air turbulence at the rear edge (13b) is restrained and air blast noise is reduced accordingly. <IMAGE>

IPC 1-7
F04D 29/30

IPC 8 full level
F04D 29/28 (2006.01); **F04D 29/30** (2006.01); **F04D 29/66** (2006.01); **F24F 1/00** (2006.01); **F24F 13/32** (2006.01)

CPC (source: EP)
F04D 29/023 (2013.01); **F04D 29/281** (2013.01); **F04D 29/30** (2013.01); **F04D 29/667** (2013.01); **F05D 2240/304** (2013.01)

Cited by
CN102996506A; FR3082897A1; ES2378207A1; US2012045338A1; CN104847692A; US9267510B2; EP2554850A4; ES2378205A1; EP2792886A3; EP3985260A1; US8029242B2; US11428424B2; US11566634B2; CN102996509A; EP3832146A1; WO2016090417A1; US8225623B2; US10844876B2; WO2016201516A1; US8256241B2; US8499580B2; EP3832146B1

Designated contracting state (EPC)
BE DE ES FR GB IT

DOCDB simple family (publication)
EP 0942175 A1 19990915; **EP 0942175 A4 20020508**; **EP 0942175 B1 20041124**; AU 712784 B2 19991118; AU 9186298 A 19990423; CN 1133819 C 20040107; CN 1241248 A 20000112; DE 69827764 D1 20041230; DE 69827764 T2 20051229; ES 2234153 T3 20050616; HK 1021556 A1 20000616; JP 3092554 B2 20000925; JP H11101198 A 19990413; WO 9917027 A1 19990408

DOCDB simple family (application)
EP 98944261 A 19980928; AU 9186298 A 19980928; CN 98801427 A 19980928; DE 69827764 T 19980928; ES 98944261 T 19980928; HK 00100481 A 20000125; JP 26540197 A 19970930; JP 9804331 W 19980928