

Title (en)
Centrifugal blower assembly

Title (de)
Kreiselgebläseeinheit

Title (fr)
Unité de soufflante centrifugale

Publication
EP 0846868 A3 19990203 (EN)

Application
EP 97203477 A 19971110

Priority
US 76077196 A 19961205

Abstract (en)
[origin: EP0846868A2] A centrifugal blower assembly (10) includes a volute housing (12) of the axially asymmetrically expanding type, with an upper end wall (24) flattened off for ease of installation and a spiraling lower end wall (26) and tangential outlet (34) that are consequently both downwardly axially displaced relative to the flat end wall (24) and the cylindrical air inlet (28) into the housing (12). To counteract the flow inefficiency that normally results from the axial displacement of inlet (28) relative to outlet (34), the blower (12) is formed with a curved tip ring (44) and correspondingly curved, axially opposed base rim (42) that shift axially downwardly from an air entrance (36) that is shifted axially above the flat end wall (24) and cylindrical inlet (28). Air drawn in through the entrance (36) by the blower (14) is thereby given a significant axially downward velocity component, which causes it to approach and better conform to the axially displaced end wall (26). <IMAGE>

IPC 1-7
F04D 29/42; F04D 29/28

IPC 8 full level
B60H 1/00 (2006.01); **F04D 17/06** (2006.01); **F04D 17/16** (2006.01); **F04D 29/28** (2006.01); **F04D 29/42** (2006.01); **F04D 29/44** (2006.01)

CPC (source: EP)
F04D 17/06 (2013.01); **F04D 29/282** (2013.01); **F04D 29/4233** (2013.01)

Citation (search report)
• [A] US 4890598 A 19900102 - KINSWORTHY DONALD D [US]
• [A] DE 9116263 U1 19920723
• [A] EP 0444551 A2 19910904 - OPEL ADAM AG [DE]
• [A] US 3584968 A 19710615 - KEITH MOWRY W
• [A] US 3829250 A 19740813 - SAMSON W

Cited by
FR2789447A1; CN110259724A; EP1210264A4; DE102005027460B4; CN104454633A; CN105317661A; EP1178215A3; DE102005026423B4; FR2868813A1; CN1096574C; EP1582750A3; US9989066B2; US9927136B2; US10465928B2; US9797612B2; US9903602B2; US7481617B2; US6604906B2; US9568017B2; WO2012130437A1; WO0059358A1; WO2016016614A1; US10408478B2; US6348106B1; US9982677B2; EP1106837A1; FR2801941A1; CN105065332A; CN106715922A; EP3208472A4; CN108386371A; US9752789B2; US9797613B2; US10563875B2; US10612565B2

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0846868 A2 19980610; EP 0846868 A3 19990203; JP H10176696 A 19980630

DOCDB simple family (application)
EP 97203477 A 19971110; JP 33555297 A 19971205