

Title (en)
BLOWER, AND OUTDOOR UNIT FOR AIR CONDITIONER

Title (de)
GEBLÄSE UND AUSSENEINHEIT FÜR KLIMAANLAGE

Title (fr)
SOUFFLANTE ET UNITE EXTERIEURE POUR CONDITIONNEUR D'AIR

Publication
EP 1357296 A4 20040114 (EN)

Application
EP 01272799 A 20011205

Priority

- JP 0110599 W 20011205
- JP 2000400530 A 20001228

Abstract (en)
[origin: EP1357296A1] Generation and growth of a wing tip vortex in a part of an outer peripheral portion of a blade not surrounded by a bell mouth is restrained to reduce noise (i.e., operation noise) generated by collision of the wing tip vortex and a fan guard on a blowoff side of a propeller fan. A ratio $H1/H0$ is set in a range of $H1/H0 = 0.40$ to 0.65 where $H1$ denotes a height of a portion of an axis directional height of the bell mouth 5 that is overlapped with an outer peripheral portion P of the blade 13, while $H0$ denotes an axis directional height of the outer peripheral portion P of the blade 13, so as to restrain growth of a leakage flow (i.e., a wing tip vortex) from a positive pressure surface to a negative pressure surface of the blade 13 in a part of the outer peripheral portion P of the blade 13 not surrounded by the bell mouth 5 while maintaining a suction flow from the outer peripheral portion P of the blade 13. <IMAGE>

IPC 1-7
F04D 29/54; **F04D 29/38**

IPC 8 full level
F04D 29/38 (2006.01); **F04D 29/54** (2006.01)

CPC (source: EP)
F04D 29/384 (2013.01); **F04D 29/545** (2013.01)

Citation (search report)

- [A] US 3937192 A 19760210 - LONGHOUSE RICHARD E
- [A] EP 0531025 A1 19930310 - CATERPILLAR INC [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 083 (M - 1216) 28 February 1992 (1992-02-28)
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 217 (M - 1403) 28 April 1993 (1993-04-28)
- See references of WO 02053919A1

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EP1610068A4; US2022178382A1; US10221860B2; US10344773B2; US9822778B2; US10408478B2; US9927136B2; US10612565B2; US10094392B2; US10100836B2; US10465928B2; US9926804B2; US10145583B2; US9982677B2; US10094581B2; US9513021B2; US9903602B2; US9752789B2; US9797613B2; US10563875B2; US8721280B2; US9745981B2; US9797612B2

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