

Title (en)

OUTDOOR UNIT OF AIR CONDITIONER

Title (de)

AUSSENENHETE FÜR KLIMAANLAGE

Title (fr)

UNITE EXTERIEURE DE CONDITIONNEUR D'AIR

Publication

EP 0884542 B1 20030507 (EN)

Application

EP 97911481 A 19971107

Priority

- JP 9704059 W 19971107
- JP 33544896 A 19961216

Abstract (en)

[origin: EP0884542A1] A sawtoothed portion 5 is provided in a front edge 3a of grille vanes 2a constituting an air outlet grille of an outdoor unit. Each crest 5a of the sawtoothed portion 5 is rounded at its tip. The height H of each crest of the sawtoothed portion 5 is set to a size of 0.05 to 0.25 times the length of the wing-shaped grille vane (chord length), and the crest-to-crest pitch S of the sawtoothed portion 5 is set to a size of 0.5 to 1.5 times the height H of each crest. As a result, there arise numerous longitudinal eddies from troughs 5b of the sawtoothed portion 5, so that an air flow of high flow rate at places away from the negative-pressure surface of the grille vanes 2a can be drawn near the negative-pressure surface. Thus, the flow on the negative-pressure surface side is unlikely to break away, and noise is reduced. <IMAGE>

IPC 1-7

F24F 13/08; F24F 5/00; F24F 1/00; F24F 13/24

IPC 8 full level

F24F 5/00 (2006.01); **F24F 1/40** (2011.01); **F24F 1/56** (2011.01); **F24F 13/08** (2006.01); **F24F 13/24** (2006.01)

CPC (source: EP KR)

F24F 1/58 (2013.01 - EP KR); **F24F 13/08** (2013.01 - EP); **F24F 13/082** (2013.01 - KR); **F24F 13/24** (2013.01 - EP KR);
F24F 13/082 (2013.01 - EP)

Cited by

US2018206610A1; DE102012213930A1; US2015093983A1; US10197298B2; EP3492831A1; CN109849620A; US10383422B2; EP2508815A1;
US10047972B2; US10203124B2; US10203150B2

Designated contracting state (EPC)

BE DE ES FR GB GR IT NL PT

DOCDB simple family (publication)

EP 0884542 A1 19981216; EP 0884542 A4 20000329; EP 0884542 B1 20030507; AU 4885597 A 19980715; AU 719177 B2 20000504;
CN 1106545 C 20030423; CN 1211311 A 19990317; DE 69721739 D1 20030612; DE 69721739 T2 20040205; ES 2198557 T3 20040201;
HK 1016247 A1 19991029; ID 21219 A 19990506; JP 3052862 B2 20000619; JP H10176847 A 19980630; KR 100453318 B1 20041231;
KR 19990081955 A 19991115; PT 884542 E 20030930; SA 97180747 B1 20060812; WO 9827390 A1 19980625

DOCDB simple family (application)

EP 97911481 A 19971107; AU 4885597 A 19971107; CN 97192322 A 19971107; DE 69721739 T 19971107; ES 97911481 T 19971107;
HK 99101114 A 19990317; ID 980049 D 19971107; JP 33544896 A 19961216; JP 9704059 W 19971107; KR 19980705673 A 19980724;
PT 97911481 T 19971107; SA 97180747 A 19971228