Title (en)
AIR CONDITIONER

Title (de)
KLIMAANLAGE

Title (fr)
CONDITIONNEUR D'AIR

Publication
EP 0947781 A4 20010502 (EN)

Application
EP 98943074 A 19980921

Priority
- JP 9804246 W 19980921
- JP 25698597 A 19970922

Abstract (en)
[origin: EP0947781A1] An indoor unit (1) included in an air conditioner has an indoor heat exchanger (11a), a filter frame (5) disposed adjacent to the front surface of the indoor heat exchanger (11a), and a filter case (7) detachably attached to the front surface of the filter frame (5). A handle (34) is formed on a lower part of the filter case (7) and defines an opening (34a) opening toward the heat exchanger (11a). A barrier (50) is formed on the filter frame (5) so as to lie between the handle (34) of the filter case (7) as attached to the filter frame (5), and the heat exchanger (11a). The barrier (50) of the filter frame (5) prevents finger tips from touching the heat exchanger (11a) when attaching the filter case (7) to and removing the same from the filter frame (5) and facilitates grasping the handle (34). <IMAGE>

IPC 1-7 (main, further and additional classification)
F24F 1/00; F24F 13/28

IPC 8 full level (invention and additional information)
B01D 46/10 (2006.01); **F24F 13/20** (2006.01); **F24F 13/28** (2006.01)

CPC (invention and additional information)
F24F 13/28 (2013.01); **F24F 1/0007** (2013.01); F24F 2001/0048 (2013.01)

Citation (search report)
- [A] US 5092396 A 19920303 - MURANO MITSUO [JP], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 385 (M - 864) 25 August 1989 (1989-08-25)
- See also references of WO 9915835A1

Cited by
EP1943466A4; EP1777470A1; US8002868B2; US7594411B2; US7350370B2; EP1607691A1

Designated contracting state (EPC)
GB IT

EPO simple patent family
EP 0947781 A1 19991006; EP 0947781 A4 20010502; EP 0947781 B1 20041201; CN 1183358 C 20050105; CN 1239542 A 19991222; JP 3672419 B2 20050720; JP H1194289 A 19990409; KR 20000068353 A 20001125; WO 9915835 A1 19990401

INPADOC legal status

2013-08-30 [PG25 IT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : IT
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20120921

2013-07-31 [PG25 GB] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : GB
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20120921

2013-05-29 [GBPC] GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
- Effective date : 20120921

2011-12-30 [PGFP IT] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : IT
- Payment date : 20110919
- Year of fee payment : 14

2011-11-30 [PGFP GB] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : GB
- Payment date : 20110921
- Year of fee payment : 14

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- Effective date : 20050902

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2003-10-01 [17Q] FIRST EXAMINATION REPORT
- Effective date : 20030820

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- Effective date : 20010322

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- Designated State(s) : GB IT

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- Free text : 7F 24F 1/00 A, 7F 24F 13/28 B

1999-10-06 [17P] REQUEST FOR EXAMINATION FILED
- Effective date : 19990622

1999-10-06 [AK] DESIGNATED CONTRACTING STATES:
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- Designated State(s) : GB IT