

Title (en)

Multi-unit air conditioner and method for controlling operation of outdoor unit fan thereof

Title (de)

Mehrere Einheiten enthaltende Klimaanlage und Verfahren zur Steuerung des Betriebs der Lüfter der Ausseneinheit derselben

Title (fr)

Conditionneur d'air comprenant plusieurs unités et procédé de commande du ventilateur de l'unité extérieure de celui-ci

Publication

EP 1391660 B1 20081210 (EN)

Application

EP 03007968 A 20030409

Priority

KR 20020049751 A 20020822

Abstract (en)

[origin: EP1391660A1] Multi-unit air conditioner for independent cooling/heating of each room including an outdoor unit (A), a distributor (B) and a plurality of indoor units (C1,C2,C3), wherein the outdoor unit (A) and the distributor (B) are connected with two piping specifically defined as a high pressure section and a low pressure section. The outdoor unit (A) includes an outdoor unit piping for connecting different elements, a bypass piping (11,12,13) for bypassing refrigerant depending on operation a condition, and a plurality of refrigerant flow control valves (3a,4a,5a,11a,12a,13a) for controlling a refrigerant flow. The distributor (B) includes a gas-liquid separator (40) for separating the refrigerant into gas refrigerant and liquid refrigerant, for selectively leading refrigerant from the outdoor unit (A) to a plurality of indoor units (C1,C2,C3) according to different operation conditions for independent cooling and heating of each room. Method for controlling operation of an outdoor unit fan (2a) in a multi-unit air conditioner includes the steps of measuring a temperature of gas-liquid mixture refrigerant from an outdoor unit heat exchanger (2), comparing a measured refrigerant temperature and a preset refrigerant temperature, to detect a gas-refrigerant mixture ratio of the refrigerant, and varying a rotational speed of an outdoor unit fan (2a) so that a detected gas-liquid mixture ratio is identical to a preset gas-liquid mixture ratio required for an intended operation condition. <IMAGE>

IPC 8 full level

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CPC (source: EP)

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Cited by

US2016245540A1; EP1972861A3; EP1806549A1; US10393418B2; EP1643195A3; CN103629794A; EP2924360A4; EP2623873A3

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