

Title (en)

Air conditioner and method of controlling the same

Title (de)

Klimaanlage und Verfahren zur Steuerung derselben

Title (fr)

Système de climatisation et procédé de commande de celui-ci

Publication

EP 1806549 A1 20070711 (EN)

Application

EP 06123375 A 20061102

Priority

KR 20060002278 A 20060109

Abstract (en)

Disclosed herein are a simultaneous cooling and heating type multi-system air conditioner and a method of controlling the same that can minimize noise generated when operation mode of each indoor unit is changed. The air conditioner includes a compressor, at least one indoor unit, a mode change unit having a cooling valve openable to perform a cooling operation of the indoor unit and a heating valve openable to perform a heating operation of the indoor unit, a refrigerant cycle to connect the compressor, the mode change unit, and the indoor unit, a hot gas bypass valve disposed between inlet and outlet sides of the compressor, and a controller to control the cooling valve to be turned off for a first predetermined time around the point of time when the hot gas bypass valve is turned on, when operation mode of the indoor unit is changed from cooling mode to heating mode, so as to minimize the difference between the pressure of a high-pressure section of the refrigerant cycle and the pressure of an outlet side of the indoor unit.

IPC 8 full level

F25B 13/00 (2006.01)

CPC (source: EP KR)

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Citation (applicant)

EP 1655552 A2 20060510 - SAMSUNG ELECTRONICS CO LTD [KR]

Citation (search report)

- [PX] EP 1655552 A2 20060510 - SAMSUNG ELECTRONICS CO LTD [KR]
- [A] EP 1391660 A1 20040225 - LG ELECTRONICS INC [KR]
- [A] GB 2241315 A 19910828 - TOSHIBA KK [JP], et al
- [A] GB 2230873 A 19901031 - TOSHIBA KK [JP]

Cited by

EP2873936A3; EP2426438A3; CN106218355A; US11624531B2; EP4040085A4; WO2019245675A1; WO2013096035A1

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DOCDB simple family (application)

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