

Title (en)  
Multi-system air-conditioner and method for controlling the same

Title (de)  
Mehrsystem-Klimaanlage und Steuerverfahren dafür

Title (fr)  
Climatiseur multi-système et procédé de commande correspondant

Publication  
**EP 1956306 A3 20131016 (EN)**

Application  
**EP 07120691 A 20071114**

Priority  
KR 20070012409 A 20070206

Abstract (en)  
[origin: EP1956306A2] A multi-system air-conditioner for limiting a frequency-rising width of a compressor according to the air-volume of the indoor units, and enabling the indoor units to discharge the most comfortable-temperature air irrespective of the setup air-volume of the indoor units. The multi-system air-conditioner includes an outdoor unit, a plurality of indoor units connected to the outdoor unit, and a compressor for varying its own frequency according to operation capacity of the indoor units. The method for operating the multi-system air-conditioner includes: comparing, by each of the indoor units, a setup temperature with a room temperature, and calculating a capacity required for each indoor unit; calculating the sum of all the required capacities of the indoor units to calculate a combination ratio of all the operating indoor units; and comparing the calculated combination ratio with a reference combination ratio to determine whether the combination ratio of the indoor units is equal to or less than the reference combination ratio, limiting a frequency-rising width of the compressor to a predetermined value according to air-volumes of the operating indoor units when the calculated combination ratio is equal to or less than the reference combination ratio, and operating the air-conditioner at the limited value.

IPC 8 full level  
**F24F 3/06** (2006.01); **F24F 11/00** (2006.01)

CPC (source: EP KR US)  
**F24F 3/065** (2013.01 - EP KR); **F24F 11/30** (2017.12 - KR); **F24F 11/70** (2017.12 - EP KR US); **F25B 49/022** (2013.01 - KR); **F24F 2110/10** (2017.12 - KR); **F25B 2600/024** (2013.01 - KR); **F25B 2700/2104** (2013.01 - KR)

Citation (search report)

- [X] EP 1555495 A2 20050720 - SAMSUNG ELECTRONICS CO LTD [KR]
- [X] EP 1645810 A2 20060412 - SAMSUNG ELECTRONICS CO LTD [KR]
- [XA] US 4679411 A 19870714 - PEARSE JR RICHARD H [US]
- [X] US 2003010047 A1 20030116 - SHIMODA JUNICHI [JP]

Cited by  
EP3054231A4; US10203136B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 1956306 A2 20080813**; **EP 1956306 A3 20131016**; **EP 1956306 B1 20190918**; CN 101240933 A 20080813; CN 101240933 B 20100630; KR 101151321 B1 20120608; KR 20080073602 A 20080811

DOCDB simple family (application)  
**EP 07120691 A 20071114**; CN 200710169468 A 20071116; KR 20070012409 A 20070206