

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 A2 20080813 (EN)

Application
EP 07120691 A 20071114

Priority
KR 20070012409 A 20070206

Abstract (en)
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)

Cited by
EP3054231A4; US10203136B2

Designated contracting state (EPC)
DE FR GB

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