

Title (en)

Multiple room type air conditioning system and control method therefor.

Title (de)

Klimaanlage für mehrere Räume und Regelverfahren dafür.

Title (fr)

Système de conditionnement d'air pour plusieurs chambres et procédé pour sa commande.

Publication

EP 0282782 A2 19880921 (EN)

Application

EP 88102741 A 19880224

Priority

JP 6385587 A 19870320

Abstract (en)

A heat pump type multiple room air conditioning system comprises a single outdoor unit (A) including a compressor (1) and an outdoor heat exchanger (4), a plurality of indoor units (B, C, D) each including an indoor heat exchanger (8b, 8c, 8d), a plurality of electric reverse expansion valves (9b, 9c, 9d) and a plurality of solenoid valves (10b, 10c, 10d). The expansion valves (9) associated with the inoperating indoor units of the indoor units, or such expansion valves (9) and the solenoid valves (10) associated with the inoperating indoor units of the indoor units, in operation of the system, are opened or closed to change the amount of refrigerant stored within the inoperating indoor units. The system further comprises a controller (16) for sampling a subcooling degree (SC) of the refrigerant in refrigeration circuit or super heating degree (SH) thereof periodically and for calculating and comparing the sampling data with predetermined values, and control signal outputting means (17) for receiving signals from the controller (16) and for outputting command signals to the expansion valves (9) and the solenoid valves (10) associated with the inoperating indoor units to intermittently close or open the expansion valves (9), or such expansion valves (9) and the solenoid valves (10).

IPC 1-7

F25B 5/00; **F25B 13/00**; **F25B 41/04**; **F25B 49/00**

IPC 8 full level

F25B 13/00 (2006.01); **F24F 11/02** (2006.01); **F25B 5/00** (2006.01); **F25B 41/04** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP KR US)

F25B 5/00 (2013.01 - EP KR US); **F25B 41/20** (2021.01 - KR); **F25B 41/24** (2021.01 - EP US); **F25B 41/31** (2021.01 - KR); **F25B 45/00** (2013.01 - KR); **F25B 49/02** (2013.01 - EP KR); **F25B 45/00** (2013.01 - EP); **F25B 2600/19** (2013.01 - EP KR); **F25B 2600/21** (2013.01 - EP KR); **F25B 2700/04** (2013.01 - EP KR)

Cited by

EP1662212A3; CN112484274A; CN105276749A; GB2215867A; US4926652A; GB2215867B; ES2155745A1; US10365025B2; US2019323750A1; US11092368B2; US9303901B2; WO2010118745A3; US11493250B2; US11573038B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0282782 A2 19880921; **EP 0282782 A3 19891115**; **EP 0282782 B1 19930526**; DE 3881242 D1 19930701; DE 3881242 T2 19931209; JP H07111283 B2 19951129; JP S63233260 A 19880928; KR 880011537 A 19881028; KR 920004952 B1 19920622

DOCDB simple family (application)

EP 88102741 A 19880224; DE 3881242 T 19880224; JP 6385587 A 19870320; KR 880000770 A 19880129