Title (en)

AIR CONDITIONER

Title (de)

KLIMAANLAGE

Title (fr)

CONDITIONNEUR D'AIR

Publication

**EP 1965150 A4 20140702 (EN)**

Application

**EP 06834561 A 20061213**

Priority

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- JP 2005363739 A 20051216

Abstract (en)

[origin: EP1965150A1] An object of the present invention is to eliminate stagnation of refrigerant in refrigerating machine oil in a compression mechanism, and to use the difference in the solubility of the refrigerant in the oil to minimize error in predicting the quantity of refrigerant. An air conditioner (1) is provided with a refrigerant circuit (7), refrigerant stagnation judgment means (8a to 8c), and an operation controller (6a to 6c). The refrigerant circuit is a circuit that includes a heat source unit (2a to 2c), a refrigerant communication pipe (4, 5), an expansion mechanism (31a, 31 b, ... ), and a utilization unit (29a to 29c, 3a, 3b, ... ). A heat source unit and a utilization unit are connected to the refrigerant fluid communication pipes. The heat source unit has a compression mechanism (21a to 21c) and a heat source side heat exchanger (24a to 24c). The refrigerant stagnation judging means can judge whether the refrigerant has stagnated inside the compression mechanism. The operation controller performs a refrigerant de-stagnation operation for eliminating stagnation of the refrigerant in the case that the refrigerant stagnation judging means has judged in advance that the refrigerant inside the compression mechanism has stagnated when a refrigerant quantity judging operation is carried out for judging the refrigerant quantity inside the refrigerant circuit.

IPC 8 full level

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CPC (source: EP KR US)

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Citation (search report)

- [A] US 2004194485 A1 20041007 - DUDLEY KEVIN F [US]
- [A] JP 2004028503 A 20040129 - MITSUBISHI HEAVY IND LTD
- See references of WO 2007069624A1

Cited by

EP3026371A1; CN110553440A; EP2196746A3; EP1965159A4; EP2103889A3; EP3574271A4; US9027357B2; WO2018140756A1; US11085679B2

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