Title (en)

AIR CONDITIONER AND METHOD FOR DETECTING AMOUNT OF REFRIGERANT IN AIR CONDITIONER

Title (de)

KLIMAANLAGE UND VERFAHREN ZUM ERKENNEN DER KÜHLMITTELMENGE IN EINER KLIMAANLAGE

Title (fr)

CLIMATISEUR ET PROCÉDÉ DE DÉTECTION DE LA QUANTITÉ DE FLUIDE FRIGORIGÈNE DANS LE CLIMATISEUR

Publication

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Application

EP 10835839 A 20101125

Priority

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Abstract (en)

Provided is an air conditioner and a method of detecting the amount of refrigerant in an air conditioner that always enables the amount of refrigerant filled to be detected with high precision, without providing a heating unit in a liquid-surface detecting circuit. An air conditioner (1), in which an outdoor unit (2) and an indoor unit (3) is connected, includes a liquid-surface detecting circuit (30) in which a bypass circuit (31) connecting a predetermined height position in a receiver (15) to an intake side of a compressor (10) has an on/off valve (33) and a decompression mechanism (32); a temperature detecting unit (34) that detects the temperature of the refrigerant decompressed by a decompression mechanism (32) and flowing in the liquid-surface detecting circuit (30); and a refrigerant-amount detecting unit (35) that controls the intermediate pressure in the receiver (15) such that the degree of superheating is 5 deg or more higher than a low-pressure saturated gas temperature and such that a saturated gas line on a pressure-enthalpy diagram is inclined toward the upper right, and that detects the temperature of the refrigerant extracted from the receiver (15) into the liquid-surface detecting circuit (30) with the temperature detecting unit (34), thereby determining the amount of refrigerant filled based on the detected temperature.

IPC 8 full level

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