

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)

[origin: WO2011070917A1] Provided are an air conditioner and a method for detecting the amount of refrigerant in the air conditioner, wherein the amount of refrigerant charge can be consistently detected with high accuracy, without providing a heating unit on a liquid level detection circuit. An air conditioner (1) to which an outdoor unit (2) and an indoor unit (3) are connected, is provided with a liquid level detection circuit (30) wherein an opening and closing valve (33) and a decompression mechanism (32) are provided on a bypass circuit (31) that connects a predetermined height position within a receiver (15) to the suction side of a compressor (10); a temperature detection unit (34) for detecting the temperature of refrigerant which passes through the liquid level detection circuit (30) and which is decompressed by a decompression mechanism (32); and a refrigerant amount detection unit (35) which controls an intermediate pressure within the receiver (15) to a pressure at which the superheated temperature is at least 5 degrees higher than the temperature of a low-pressure saturated gas, and a saturated gas line extends diagonally to the upper right in a pressure-enthalpy diagram, said refrigerant amount detection unit detecting the temperature of refrigerant transferred from the receiver (15) to the liquid level detection circuit (30) with a temperature detection unit (34) so as to determine the amount of refrigerant charge on the basis of the temperature.

IPC 8 full level

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Citation (search report)

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