

Title (en)

AIR CONDITIONER AND REFRIGERANT AMOUNT DETECTION METHOD FOR AIR CONDITIONER

Title (de)

KLIMAAANLAGE UND VERFAHREN ZUM ERKENNEN DER KÜHLMITTELMENGE IN EINER KLIMAAANLAGE

Title (fr)

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

Publication

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Application

EP 10835875 A 20101201

Priority

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Abstract (en)

[origin: WO2011070954A1] Provided are an air conditioner and refrigerant amount detection method for an air conditioner, which make it possible to constantly detect the amount of charged refrigerant with high accuracy without a heating means specially provided in a liquid level detecting circuit and even under low external temperature. An air conditioner (1), which is provided with a supercooling circuit (20), comprises: a first liquid level detecting circuit (40) which connects one position at a predetermined height inside a receiver (15) to the inlet side of a compressor (10) via the supercooling circuit (20); a second liquid level detecting circuit (45) which is branched from a bypass circuit (41) of the first liquid level detecting circuit (40) and acts as a bypass for leading, to the supercooling circuit (20), the refrigerant that has been taken out from the receiver (15); a temperature detecting unit (44) which detects the temperature of the refrigerant that has been depressurized by passing through the first liquid level detecting circuit (40) or the second liquid level detecting circuit (45); and a refrigerant amount detecting unit (48) which detects, by the temperature detecting unit (44), the post-depressurization temperature of the refrigerant that has been taken out from the receiver (15) via the first liquid level detecting circuit (40) or the second liquid level detecting circuit (45), and determines the amount of charged refrigerant on the basis of the thus detected temperature.

IPC 8 full level

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