

Title (en)

METHOD FOR JUDGING AMOUNT OF REFRIGERANT OF AIR CONDITIONER AND AIR CONDITIONER

Title (de)

VERFAHREN ZUM SCHÄTZEN DER KÄLTEMITTELMENGE EINER KLIMAANLAGE UND KLIMAANLAGE

Title (fr)

PROCEDE POUR JUGER DE LA QUANTITE D'AGENT FRIGORIGENE DANS UN CLIMATISEUR ET CLIMATISEUR

Publication

EP 2314958 B1 20181121 (EN)

Application

EP 09769910 A 20090625

Priority

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Abstract (en)

[origin: EP2314958A1] It is a problem of the present invention to reduce detection errors by performing control such that a degree of supercooling that becomes an index and a conversion value based on the degree of supercooling become values with which it is easy to determine the adequacy of the quantity of refrigerant. An air conditioning apparatus (1) refrigerant quantity determination method of the present invention is a refrigerant quantity determination method of determining, in an air conditioning apparatus having a refrigerant circuit (10) that includes a heat source unit (2) having a compressor (21), a heat source-side heat exchanger (23), and cooling heat source adjusting means (27), a utilization unit (4) having a utilization-side heat exchanger (41), an expansion mechanism (33), and a liquid refrigerant connection pipe (6) and a gas refrigerant connection pipe (7), with the refrigerant circuit being capable of performing at least cooling operation, the adequacy of the quantity of the refrigerant in the refrigerant circuit, the method comprising storing the compressor frequency, the degree of superheat, and the degree of supercooling in a stable state where the degree of supercooling has been made equal to or greater than a first predetermined value. After the elapse of a predetermined time period, the degree of supercooling of the refrigerant is detected while various controls are performed such that the compressor frequency and the degree of superheat become the stored compressor frequency and degree of superheat, and the detected degree of supercooling is compared with the stored degree of supercooling to determine the adequacy of the quantity of the refrigerant inside the refrigerant circuit.

IPC 8 full level

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Cited by

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