Title (en)

REFRIGERATION CAPACITY DETERMINATION METHOD, REFRIGERATION ENERGY EFFICIENCY RATIO DETERMINATION METHOD, AND FAILURE NOTIFICATION METHOD

Title (de)

VERFAHREN ZUR BESTIMMUNG DER KÜHLLEISTUNG, VERFAHREN ZUR BESTIMMUNG DES ENERGIEEFFIZIENZVERHÄLTNISSES DER KÜHLUNG UND VERFAHREN ZUR STÖRUNGSMELDUNG

Title (fr)

PROCÉDÉ DE DÉTERMINATION DE CAPACITÉ DE RÉFRIGÉRATION, PROCÉDÉ DE DÉTERMINATION DE RAPPORT D'EFFICACITÉ D'ÉNERGIE DE RÉFRIGÉRATION ET PROCÉDÉ DE NOTIFICATION DE DÉFAILLANCE

Publication

**EP 4027069 A1 20220713 (EN)**

Application

**EP 20860858 A 20200609**

Priority

- CN 201910833040 A 20190904
- CN 2020095114 W 20200609

Abstract (en)

The present invention relates to the technical field of air conditioners, and particularly relates to a refrigeration capacity determination method, a refrigeration energy efficiency ratio determination method, and a failure notification method. The present invention aims to solve the problem in which existing refrigeration capacity determination methods for air conditioners are unable to accurately calculate the refrigeration capacity of air-cooled air conditioners. The refrigeration capacity determination method of the present invention comprises: acquiring an indoor air density; acquiring an air output volume of an indoor unit; acquiring an air inlet enthalpy value of the indoor unit; acquiring an air outlet enthalpy value of the indoor unit; and determining a refrigeration capacity of an air conditioner according to the indoor air density, and the air output volume, the air inlet enthalpy value, and the air outlet enthalpy value of the indoor unit. The present invention estimates, by means of the indoor air density and the air output volume, an air mass that the indoor unit is capable of refrigerating per second, and uses the air inlet enthalpy value and the air outlet enthalpy value which are capable of indicating energy contained in the air. In this way, the present invention combines the indoor air density, the air output volume, the air inlet enthalpy value, and the air outlet enthalpy value to achieve accurate calculation of the refrigeration capacity.

IPC 8 full level

**F24F 11/38** (2018.01); **F24F 11/64** (2018.01); **F24F 11/74** (2018.01); **F24F 11/80** (2018.01); **F24F 11/88** (2018.01); F24F 110/10 (2018.01); F24F 110/20 (2018.01)

CPC (source: CN EP)

**F24F 11/38** (2017.12 - CN EP); **F24F 11/46** (2017.12 - EP); **F24F 11/64** (2017.12 - CN EP); **F24F 11/74** (2017.12 - CN EP); **F24F 11/80** (2017.12 - CN EP); **F24F 11/88** (2017.12 - CN); F24F 2110/10 (2017.12 - CN EP); F24F 2110/20 (2017.12 - CN EP); F24F 2110/50 (2017.12 - EP); F24F 2140/60 (2017.12 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 4027069 A1 20220713**; **EP 4027069 A4 20221109**; CN 112443932 A 20210305; WO 2021042793 A1 20210311

DOCDB simple family (application)

**EP 20860858 A 20200609**; CN 201910833040 A 20190904; CN 2020095114 W 20200609