

Title (en)

Refrigeration cycle apparatus and refrigeration unit and air-conditioning system equipped with the refrigeration cycle apparatus

Title (de)

Kältekreislaufvorrichtung und Kältegerät und Klimaanlage mit Kältekreislaufvorrichtung

Title (fr)

Appareil à circuit de réfrigération et unité de réfrigération et système de climatisation équipés de l'appareil à circuit de réfrigération

Publication

**EP 2693139 A1 20140205 (EN)**

Application

**EP 13178031 A 20130725**

Priority

JP 2012172467 A 20120803

Abstract (en)

A refrigeration cycle apparatus includes: a compressor; a fan (95a-95d) for heat source-side heat exchangers (4); multiple heat source-side heat exchangers (4) which exchange heat with air and are divided in the direction of height and grouped from a position close to the fan (95a-95d), including heat exchanger groups (401, 402, 403); an expansion valve (5); a use-side heat exchanger (6) which exchanges heat with a use-side heat conveying medium; a refrigerant pipe which sequentially connects the compressor (2), heat source-side heat exchangers (4), expansion valve (5), and use-side heat exchanger (6) and circulates refrigerant; and a controller (10) which controls the quantity of refrigerant flowing into each of the heat exchanger groups according to a load factor. As a result, the following can be implemented when the wind speed distribution of the heat source-side heat exchangers (4) is ununiform in the vertical direction: even in part load operation in which capacity requirement varies, refrigerant can be more appropriately distributed to the heat source-side heat exchangers and the period coefficient of performance (COP) for a refrigeration cycle apparatus can be enhanced.

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

JP 2006336936 A 20061214 - KOBEL STEEL LTD

Citation (search report)

- [X] EP 1793179 A1 20070606 - TOSHIBA CARRIER CORP [JP]
- [A] EP 2182306 A1 20100505 - MITSUBISHI ELECTRIC CORP [JP]
- [A] EP 1992888 A1 20081119 - DAIKIN IND LTD [JP]

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 2693139 A1 20140205**; **EP 2693139 B1 20190227**; BR 102013019668 A2 20150106; BR 102013019668 A8 20161018; BR 102013019668 B1 20201020; CN 103574952 A 20140212; CN 103574952 B 20161005; JP 2014031944 A 20140220; JP 5889745 B2 20160322

DOCDB simple family (application)

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