

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 B1 20190227 (EN)

Application

EP 13178031 A 20130725

Priority

JP 2012172467 A 20120803

Abstract (en)

[origin: EP2693139A1] 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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