

Title (en)

REFRIGERATION CYCLE DEVICE AND HOT WATER-PRODUCING DEVICE PROVIDED THEREWITH

Title (de)

KÄLTEKREISLAUFVORRICHTUNG UND WARMWATERBEREITUNGSVORRICHTUNG DAMIT

Title (fr)

DISPOSITIF À CYCLE DE RÉFRIGÉRATION ET DISPOSITIF DE PRODUCTION D'EAU CHAUDE ÉQUIPÉ DE CELUI-CI

Publication

EP 2924375 A4 20160106 (EN)

Application

EP 13856947 A 20131119

Priority

- JP 2012257050 A 20121126
- JP 2013006775 W 20131119

Abstract (en)

[origin: EP2924375A1] A refrigeration cycle apparatus includes: a refrigerant circuit 2 configured by annularly connecting, to one another through a refrigerant pipe, a compressor 21, a radiator 22, a supercooling heat exchanger 23, a main expansion valve 24 and an evaporator 25 in this order; a bypass passage 3 which is connected to the compressor 21 or to the refrigerant circuit 2; and a control device 4. Before a defrosting operation for removing frost formed on the evaporator 25 by heat of refrigerant is started, the control device 4 executes a heat accumulating operation for reducing a flow rate of refrigerant flowing through the bypass passage 3, thereby increasing a heat accumulation amount. Therefore, also when frost is formed on the evaporator 25, it is possible to effectively utilize the bypass passage 3, the defrosting operation is efficiently carried out, and it is possible to enhance energy saving performance and comfort.

IPC 8 full level

F25B 47/02 (2006.01); **F25B 1/00** (2006.01); **F25B 6/04** (2006.01); **F25B 13/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)

F25B 47/025 (2013.01); **F25B 49/02** (2013.01); **F25B 13/00** (2013.01); **F25B 2313/003** (2013.01); **F25B 2313/0314** (2013.01); **F25B 2313/0315** (2013.01); **F25B 2600/2509** (2013.01); **F25B 2600/2513** (2013.01); **F25B 2700/21151** (2013.01)

Citation (search report)

- [X] US 2008098760 A1 20080501 - SEEFELDT WILLIAM J [US]
- [I] EP 2482014 A2 20120801 - PANASONIC CORP [JP]
- [A] EP 2407735 A1 20120118 - DAIKIN IND LTD [JP], et al
- See references of WO 2014080612A1

Cited by

EP4290158A4; EP3683520A1; US10077925B2

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 2924375 A1 20150930; **EP 2924375 A4 20160106**; **EP 2924375 B1 20200101**; CN 104114964 A 20141022; CN 104114964 B 20160824; DK 2924375 T3 20200224; JP 2014105891 A 20140609; WO 2014080612 A1 20140530

DOCDB simple family (application)

EP 13856947 A 20131119; CN 201380009594 A 20131119; DK 13856947 T 20131119; JP 2012257050 A 20121126; JP 2013006775 W 20131119