

Title (en)

Refrigeration cycle apparatus and hydronic heater having the refrigeration cycle apparatus

Title (de)

Kältekreislaufvorrichtung und hydronisches Heizgerät mit Kältekreislaufvorrichtung

Title (fr)

Appareil de cycle de réfrigération et dispositif de chauffage hydronique utilisant l'appareil de cycle de réfrigération

Publication

EP 2535674 B1 20180919 (EN)

Application

EP 12171898 A 20120614

Priority

JP 2011134878 A 20110617

Abstract (en)

[origin: EP2535674A2] A refrigeration cycle apparatus of the present invention includes a first temperature sensor (61), a pressure sensor (51), a second temperature sensor (62), and a control device (4). The control device (4) controls operation of a bypass expansion valve (31) such that a temperature at an outlet of the bypass passage (3) becomes equal to a saturation temperature in a section until a number of rotation of the compressor (21) reaches a predetermined compressor target number of rotations after the compressor (21) is actuated. When the temperature at the outlet of the bypass passage (3) reaches the saturation temperature, the control device (4) increases the number of rotation of the compressor (21) to a number of rotations of a next stage, and the control device (4) controls the refrigeration cycle into an appropriate refrigeration cycle state.

IPC 8 full level

F25B 49/02 (2006.01); **F25B 40/02** (2006.01)

CPC (source: EP)

F25B 49/025 (2013.01); **F25B 40/02** (2013.01); **F25B 2339/047** (2013.01); **F25B 2400/13** (2013.01); **F25B 2500/08** (2013.01); **F25B 2500/26** (2013.01); **F25B 2500/31** (2013.01); **F25B 2600/2509** (2013.01); **F25B 2600/2513** (2013.01); **F25B 2700/21151** (2013.01); **F25B 2700/21152** (2013.01); **F25B 2700/21163** (2013.01)

Cited by

ITVI20130257A1; CN112739961A; EP2792973A1; EP3211350A1; US9618237B2

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

DOCDB simple family (publication)

EP 2535674 A2 20121219; **EP 2535674 A3 20150520**; **EP 2535674 B1 20180919**; CN 102829568 A 20121219; CN 102829568 B 20160330; DK 2535674 T3 20190121; JP 2013002744 A 20130107; JP 5816789 B2 20151118

DOCDB simple family (application)

EP 12171898 A 20120614; CN 201210200351 A 20120614; DK 12171898 T 20120614; JP 2011134878 A 20110617