

Title (en)

Refrigeration cycle apparatus and hot-water heating apparatus

Title (de)

Kühlzyklusvorrichtung und Heißwasserheizvorrichtung

Title (fr)

Appareil de cycle de réfrigération et appareil de chauffage d'eau chaude

Publication

**EP 2434233 A3 20150304 (EN)**

Application

**EP 11182247 A 20110921**

Priority

JP 2010213491 A 20100924

Abstract (en)

[origin: EP2434233A2] A refrigeration cycle apparatus includes a first temperature sensor 61 which detects discharge temperature Td of refrigerant discharged from a compressor 21, a second temperature sensor 62 which detects evaporator outlet temperature Teo of refrigerant flowing out from an evaporator 25 in a refrigerant circuit 2, and a control apparatus 4. The control apparatus 4 adjusts an amount of refrigerant flowing through a bypass expansion valve 31 based on the discharge temperature Td and based on superheat degree SHe at the output of the evaporator 25 calculated from the evaporator outlet temperature Teo. According to this, optimal refrigerant flow rate distribution can always be secured, and it is possible to obtain high operation efficiency and sufficient heating ability.

IPC 8 full level

**F25B 29/00** (2006.01)

CPC (source: EP)

**F25B 29/003** (2013.01); **F25B 6/04** (2013.01); **F25B 13/00** (2013.01); **F25B 2313/02741** (2013.01); **F25B 2339/047** (2013.01); **F25B 2400/13** (2013.01); **F25B 2600/21** (2013.01); **F25B 2600/2509** (2013.01)

Citation (search report)

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- [Y] JP 2005315558 A 20051110 - MITSUBISHI ELECTRIC CORP
- [XI] WO 2009139187 A1 20091119 - DAIKIN IND LTD [JP], et al
- [XI] WO 2010013392 A1 20100204 - DAIKIN IND LTD [JP], et al
- [A] EP 1970653 A1 20080917 - DAIKIN IND LTD [JP]

Cited by

US2017234582A1; CN113757958A; EP3147587A4; CN114740915A; CN112460831A; EP4290158A4; US10473354B2; US10823471B2

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 2434233 A2 20120328**; **EP 2434233 A3 20150304**; **EP 2434233 B1 20190703**; CN 102419024 A 20120418; CN 102419024 B 20150225; DK 2434233 T3 20190826; JP 2012067967 A 20120405; JP 5533491 B2 20140625

DOCDB simple family (application)

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