

## Title (en)

Refrigeration cycle apparatus and warm water producing apparatus having refrigeration cycle apparatus

## Title (de)

Kältekreislaufvorrichtung sowie Warmwasserherstellungsvorrichtung mit Kältekreislaufvorrichtung

## Title (fr)

Appareil à cycle de réfrigération et appareil de production d'eau chaude disposant d'un appareil à cycle de réfrigération

## Publication

**EP 2735819 A3 20160622 (EN)**

## Application

**EP 13193564 A 20131119**

## Priority

JP 2012257049 A 20121126

## Abstract (en)

[origin: EP2735819A2] The refrigeration cycle apparatus includes a refrigerant circuit 2, a refrigerant/refrigerant heat exchanger 23 and a control device 4. The refrigerant/refrigerant heat exchanger 23 includes an outer pipe 23a through which high pressure refrigerant flows, and an inner pipe 23b which is disposed in the outer pipe 23a and through which low pressure refrigerant flows. At least a portion of air flowing through the evaporator 25 is induced by the refrigerant/refrigerant heat exchanger 23. Therefore, the high pressure refrigerant is cooled by the air, a supercooling degree of refrigerant is increased, temperature of air flowing into the evaporator 25 is made to rise, and a heat exchanging amount in the evaporator 25 is increased. Therefore, it is possible to enhance energy efficiency.

## IPC 8 full level

**F25B 13/00** (2006.01); **F25B 40/02** (2006.01)

## CPC (source: EP)

**F25B 13/00** (2013.01); **F25B 40/02** (2013.01); **F25B 29/003** (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); **F25B 2700/1933** (2013.01); **F25B 2700/2101** (2013.01); **F25B 2700/21173** (2013.01)

## Citation (search report)

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- [Y] JP 2010281496 A 20101216 - SANDEN CORP
- [XI] GB 1118768 A 19680703 - ROBERT VALDEMAR ANDERSON
- [A] KR 100899525 B1 20090526 - KIM YOUNG KWAN [KR]
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- [A] JP 2011099572 A 20110519 - PANASONIC CORP

## Cited by

US2017307265A1; CN115789989A; CN113227672A; US10302339B2; WO2016066489A1; US11112140B2; US11686513B2

## Designated contracting state (EPC)

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## Designated extension state (EPC)

BA ME

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**EP 2735819 A2 20140528; EP 2735819 A3 20160622; EP 2735819 B1 20190109**; CN 103836847 A 20140604; CN 103836847 B 20170811; JP 2014105890 A 20140609

## DOCDB simple family (application)

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