Title (en)

REFRIGERATION CYCLE DEVICE

Title (de)

KÄLTEKREISLAUFVORRICHTUNG

Title (fr)

DISPOSITIF DE CYCLE DE REFRIGERATION

Publication

EP 2381190 A4 20131002 (EN)

Application

EP 09834397 A 20091221

Priority

- JP 2009007066 W 20091221
- JP 2008325208 A 20081222

Abstract (en)

[origin: EP2381190A1] A refrigeration cycle apparatus 100 is provided with a working fluid circuit 106 and a first bypass passage 112. The working fluid circuit 106 is formed of a first compressor 101, a heat radiator 102, an expander 103, an evaporator 104, a second compressor 105, and flow passages 106a to 106e connecting these components in this order. The expander 103 and the second compressor 105 are coupled to each other by a power-recovery shaft 107 so that the second compressor 105 is driven by the power recovered by the expander 103. The first bypass passage 112 communicates between a portion from the discharge port of the first compressor 101 to the suction port of the expander 103 in the working fluid circuit 106 and a portion from the outlet of the evaporator 104 to the suction port of the second compressor 105 in the working fluid circuit 106, at the time of activation of the refrigeration cycle apparatus 100.

IPC 8 full level

F25B 1/00 (2006.01); **F25B 1/10** (2006.01); **F25B 9/00** (2006.01)

CPC (source: EP US)

F25B 1/10 (2013.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 9/06** (2013.01 - EP US); F25B 2309/061 (2013.01 - EP US); F25B 2400/0401 (2013.01 - EP US); F25B 2400/14 (2013.01 - EP US); F25B 2500/26 (2013.01 - EP US); F25B 2600/01 (2013.01 - EP US); F25B 2700/191 (2013.01 - EP US)

Citation (search report)

- [Y] WO 2008054380 A2 20080508 - CARRIER CORP [US], et al
- [Y] WO 2008140454 A1 20081120 - CARRIER CORP [US], et al
- [A] WO 2008079129 A1 20080703 - CARRIER CORP [US], et al
- See references of WO 2010073586A1

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Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

EP 2381190 A1 20111026; **EP 2381190 A4 20131002**; CN 102257332 A 20111123; CN 102257332 B 20130814; JP WO2010073586 A1 20120607; US 2011247358 A1 20111013; WO 2010073586 A1 20100701

DOCDB simple family (application)

EP 09834397 A 20091221; CN 200980151528 A 20091221; JP 2009007066 W 20091221; JP 2010543836 A 20091221; US 200913140331 A 20091221