

Title (en)
REFRIGERATION CYCLE DEVICE

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication
EP 2730859 A4 20141112 (EN)

Application
EP 12807481 A 20120703

Priority
• JP 2011148794 A 20110705
• JP 2012004313 W 20120703

Abstract (en)
[origin: EP2730859A1] A refrigeration cycle apparatus (100) has: a refrigerant circuit (1) including an upstream-side throttling device (14, 18), a gas-liquid separator (16), and a downstream-side throttling device (18, 14); an injection passage (22); and a controller (30). The injection passage (22) is provided with a heater (24). The controller (30) performs an intermediate pressure control operation for adjusting at least one of an opening degree of the upstream-side throttling device and an opening degree of the downstream-side throttling device so that a temperature difference between a gas-liquid separation temperature detected by an intermediate pressure temperature sensor (26) and an injection temperature detected by a superheat temperature sensor (28) becomes smaller than a predetermined value, and then increasing the opening degree of the downstream-side throttling device until the gas-liquid separation temperature drops by a predetermined value of degrees from the gas-liquid separation temperature that is detected on completion of the adjustment.

IPC 8 full level
F25B 1/00 (2006.01); **F25B 13/00** (2006.01)

CPC (source: EP)
F25B 13/00 (2013.01); **F25B 41/39** (2021.01); **F25B 2313/02741** (2013.01); **F25B 2400/01** (2013.01); **F25B 2400/072** (2013.01); **F25B 2400/13** (2013.01); **F25B 2400/23** (2013.01); **F25B 2600/2509** (2013.01); **F25B 2700/19** (2013.01); **F25B 2700/2101** (2013.01); **F25B 2700/2106** (2013.01); **F25B 2700/2109** (2013.01)

Citation (search report)
• [A] JP 2005147456 A 20050609 - DAIKIN IND LTD
• [A] JP 2001255030 A 20010921 - SANYO ELECTRIC CO
• See references of WO 2013005424A1

Cited by
EP3159630A1; CN104990397A; EP4071425A4; US10317113B2; EP3631325A4; WO2018221875A1; US10976086B2; EP3901538A1; US11906219B2

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