

Title (en)

AIR-CONDITIONING HOT-WATER SUPPLY SYSTEM

Title (de)

HEISSWASSERVERSORGUNGSSYSTEM FÜR EINE KLIMAAANLAGE

Title (fr)

SYSTÈME D'ALIMENTATION EN EAU CHAUDE POUR CLIMATISEUR

Publication

EP 2489965 A1 20120822 (EN)

Application

EP 10823244 A 20100811

Priority

- JP 2009238938 A 20091016
- JP 2010063638 W 20100811

Abstract (en)

Problem to be Solved: To provide an air-conditioning hot-water supply system in which the advantages of an ejector can be provided in both cooling operation and heating operation and which allows a reduction in power consumption of an air-conditioning refrigerant circuit. Solution: An air-conditioning refrigerant circuit (10) for selectively performing cooling operation and heating operation is composed of two circuits: a high-temperature-side refrigerant circuit constructed of a discharge portion (18c) of an ejector (18), a compressor (11), a four-way valve (12b), an intermediate heat exchanger (90), a second heat exchanger (17b), and a nozzle portion (18a) of the ejector; and a low-temperature-side refrigerant circuit constructed of the discharge portion (18c) of the ejector, the compressor (11), a four-way valve (12a), a heat exchanger (13a), an expansion valve (14), an expansion valve (16), a first heat exchanger (17a), and a suction portion (18b) of the ejector. A refrigerant pipe of the low-temperature-side refrigerant circuit for connecting between the expansion valve (14) and the expansion valve (16) is joined to a refrigerant pipe of the high-temperature-side refrigerant circuit for connecting between the intermediate heat exchanger (90) and the second heat exchanger (17b), to form a common refrigerant circuit into which a refrigerant flows from both of the high-temperature-side refrigerant circuit and the low-temperature-side refrigerant circuit. An air-conditioning expansion valve (15) is incorporated in the common refrigerant circuit.

IPC 8 full level

F25B 1/00 (2006.01); **F25B 7/00** (2006.01); **F25B 41/00** (2006.01)

CPC (source: EP)

F24D 17/02 (2013.01); **F25B 7/00** (2013.01); **F25B 1/06** (2013.01); **F25B 1/10** (2013.01); **F25B 13/00** (2013.01); **F25B 2313/02742** (2013.01); **F25B 2339/047** (2013.01); **F25B 2341/0013** (2013.01); **F25B 2600/2513** (2013.01)

Citation (search report)

See references of WO 2011045976A1

Cited by

ES2464940A1

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 SE SI SK SM TR

DOCDB simple family (publication)

EP 2489965 A1 20120822; CN 102472537 A 20120523; CN 102472537 B 20140507; JP 2011085331 A 20110428; JP 5166385 B2 20130321; WO 2011045976 A1 20110421

DOCDB simple family (application)

EP 10823244 A 20100811; CN 201080034603 A 20100811; JP 2009238938 A 20091016; JP 2010063638 W 20100811