

Title (en)
COMBINED AIR-CONDITIONING AND HOT-WATER SUPPLY SYSTEM

Title (de)
KOMBINATION AUS KLIMAANLAGE UND HEISSWASSERVERSORGUNGSSYSTEM

Title (fr)
SYSTÈME POUR ALIMENTATION EN EAU CHAUDE ET POUR CONDITIONNEMENT D'AIR COMBINÉS

Publication
EP 2902726 A1 20150805 (EN)

Application
EP 12885435 A 20120925

Priority
JP 2012074450 W 20120925

Abstract (en)
A combined air-conditioning and hot water supply system includes a refrigerant circuit and a hot water supply-side control processing device 420. The refrigerant circuit is formed by connecting, by pipes, at least one heat source unit 110 including a compressor 111 and a heat source-side heat exchanger 113, at least one indoor unit 310 including an indoor-side heat exchanger 311 and an indoor-side expansion device 312, at least one hot water supply unit 410 including a refrigerant-water heat exchanger 411 and a hot water supply-side expansion device 412, and a branch unit 210 including a gas-liquid separator 211 and a solenoid valve 213. The gas-liquid separator 211 supplies a gaseous refrigerant to the indoor unit 310 and/or the hot water supply unit 410 which heats a target with which the gaseous refrigerant exchanges heat, and supplies a liquid refrigerant to the indoor unit 310 and/or the hot water supply unit 410 which heats a target with which the liquid refrigerant exchanges heat. The solenoid valve 213 controls the flow path of refrigerant in the indoor unit 310 and the hot water supply unit 410. The hot water supply-side control processing device 420 increases, while the hot water supply unit 410 is stopped, the pressure in a refrigerant-side flow path in the refrigerant-water heat exchanger 411 if the hot water supply-side control processing device 420 determines that there is a possibility of freezing of water in a water-side flow path in the refrigerant-water heat exchanger 411.

IPC 8 full level
F25B 29/00 (2006.01); **F25B 13/00** (2006.01); **F25B 30/02** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)
F25B 13/00 (2013.01); **F25B 47/006** (2013.01); **F25B 49/02** (2013.01); **F25B 2313/003** (2013.01); **F25B 2313/023** (2013.01); **F25B 2313/0311** (2013.01); **F25B 2313/0314** (2013.01); **F25B 2313/0315** (2013.01); **F25B 2500/06** (2013.01); **F25B 2700/1931** (2013.01); **F25B 2700/1933** (2013.01); **F25B 2700/21151** (2013.01); **F25B 2700/21152** (2013.01)

Cited by
CN107166478A; EP3205954A1; WO2020034512A1

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 2902726 A1 20150805; **EP 2902726 A4 20160608**; **EP 2902726 B1 20200422**; JP 5893151 B2 20160323; JP WO2014049673 A1 20160818; WO 2014049673 A1 20140403

DOCDB simple family (application)
EP 12885435 A 20120925; JP 2012074450 W 20120925; JP 2014537856 A 20120925