

Title (en)
HOT WATER SUPPLY SYSTEM

Title (de)
HEISSWASSERVERSORGUNGSSYSTEM

Title (fr)
SYSTÈME D'ALIMENTATION EN EAU CHAUDE

Publication
EP 2623898 A4 20180117 (EN)

Application
EP 11828854 A 20110920

Priority
• JP 2010215911 A 20100927
• JP 2011071326 W 20110920

Abstract (en)
[origin: EP2623898A1] A cascade refrigeration cycle is constituted of a low-temperature refrigeration cycle (Rb) that needs a four-way valve (11) and a high-temperature refrigeration cycle (Ra) that does not need the four-way valve (11) and an intermediate heat exchanger (5) included in each refrigeration cycle is caused to exchange heat. A hot water pipe (H) communicates with a water heat exchanger (2) in the high-temperature refrigeration cycle (Ra) and water or hot water is exchanged for high-temperature hot water, which is supplied to the side of use. A bypass circuit (B) has one end connected to a refrigerant pipe (P) between a high-temperature compressor (1) and the water heat exchanger in the high-temperature refrigeration cycle, has the other end connected to the refrigerant pipe between a high-temperature expansion device (4) and the intermediate heat exchanger, and has a fluid-controlled valve (8) provided in an intermediate portion. A controller (S) exercises specific control during defrosting operation for an evaporator in the low-temperature refrigeration cycle (Rb) by controlling the fluid-controlled valve (8) to open and the high-temperature expansion device to close during defrosting operation of an aero-thermal exchanger (12) in the low-temperature refrigeration cycle (Rb) to enable reductions of parts costs and an efficient defrosting operation.

IPC 8 full level
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Citation (search report)
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