

Title (en)

Supercritical steam compression heat pump and hot-water supply unit

Title (de)

Überkritische Dampfkomppressionswärmepumpe und Heißwasserversorgungseinheit

Title (fr)

Pompe à chaleur à compression de vapeur supercritique et unité d'alimentation en eau chaude

Publication

**EP 2525168 B1 20190807 (EN)**

Application

**EP 12167898 A 20120514**

Priority

JP 2011111747 A 20110518

Abstract (en)

[origin: EP2525168A1] An object is to provide a supercritical steam compression heat pump whose heating capacity can be increased by enabling the operation thereof without reducing a high pressure. In a supercritical steam compression heat pump 2 in which CO<sub>2</sub> refrigerant is employed as a working medium and a refrigerant circulation circuit 18 is formed in which a compressor 9, a heat sink 11, an internal heat exchanger 14, depressurizing means 15A and 15B, evaporators 17A and 17B, and a low-pressure gas/liquid separator 26 are connected with pipes in this order, the low-pressure gas/liquid separator 26 is disposed in an intake pipe 18A that connects an outlet side of the internal heat exchanger 14 and the compressor 9.

IPC 8 full level

**F25B 9/00** (2006.01); **F25B 40/00** (2006.01); **F25B 43/00** (2006.01)

CPC (source: EP)

**F25B 9/008** (2013.01); **F25B 40/00** (2013.01); **F25B 43/006** (2013.01); **F25B 2309/061** (2013.01); **F25B 2400/13** (2013.01)

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**EP 2525168 A1 20121121**; **EP 2525168 B1 20190807**; ES 2750032 T3 20200324; JP 2012241967 A 20121210

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