

Title (en)  
HEAT PUMP WATER HEATER USING CO2 REFRIGERANT

Title (de)  
WÄRMEPUMPENWASSERHEIZER UNTER VERWENDUNG MIT CO2-KÄLTEMITTEL

Title (fr)  
CHAUFFE-EAU DE POMPE À CHALEUR FAISANT APPEL À UN RÉFRIGÉRANT À BASE DE CO2 & xA

Publication  
**EP 2581682 A1 20130417 (EN)**

Application  
**EP 11774847 A 20110418**

Priority  
• JP 2010103827 A 20100428  
• JP 2011059492 W 20110418

Abstract (en)  
Provided is a heat-pump hot water supply system employing CO 2 refrigerant whose capacity can be increased while keeping container of constituent devices at or below a certain size regulated by the High Pressure Gas Safety Law. In a heat-pump hot water supply system (1) employing CO 2 refrigerant provided with refrigerant circulation circuits (3A and 3B) employing CO 2 refrigerant, which includes compressors (4A and 4B), heat sinks (6A and 6B), depressurizing means (10A and 10B), and heat absorbers (13A and 13B), and a hot-water supplying heat exchanger (19) having a water channel (19A) that performs heat exchange with the heat sinks (6A and 6B), and in which multiple systems of the refrigerant circulation circuits (3A and 3B) are provided in parallel for the hot-water supplying heat exchanger (19), container sizes for all individual constituent devices of individual heat pumps (2A and 2B) formed in the multiple systems of the refrigerant circulation circuits (3A and 3B) are 160 mm or below in terms of inner diameters, and the total refrigerating capacity thereof is three refrigerating tons or greater.

IPC 8 full level  
**F25B 1/00** (2006.01); **F24D 17/02** (2006.01); **F24H 4/04** (2006.01); **F25B 9/00** (2006.01); **F25B 30/02** (2006.01)

CPC (source: EP)  
**F24D 17/02** (2013.01); **F24H 4/04** (2013.01); **F25B 9/008** (2013.01); **F24D 2200/123** (2013.01); **F25B 2339/047** (2013.01); **F25B 2400/06** (2013.01)

Cited by  
EP3674610A1

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

DOCDB simple family (publication)  
**EP 2581682 A1 20130417**; **EP 2581682 A4 20131127**; JP 2011232000 A 20111117; JP 5705455 B2 20150422; WO 2011136064 A1 20111103

DOCDB simple family (application)  
**EP 11774847 A 20110418**; JP 2010103827 A 20100428; JP 2011059492 W 20110418