

Title (en)
Water heater

Title (de)
Warmwasserbereiter

Title (fr)
Chauffe-eau

Publication
EP 2857761 B1 20160622 (EN)

Application
EP 14162197 A 20140328

Priority
JP 2013208484 A 20131003

Abstract (en)
[origin: EP2857761A1] [Object] To obtain a water heater that is capable of delivering hot water at a higher temperature, while suppressing an increase in the condensing pressure of a refrigerant. [Solution] A refrigerant circuit includes a compressor 2 that compresses a refrigerant, the capacity of the compressor 2 being variable; a refrigerant/water heat exchanger 12 that exchanges heat between the refrigerant and water; a decompression device 4 that decompresses the refrigerant by opening degree adjustment; and an evaporator 5 that evaporates the refrigerant by heat exchange, and the compressor 2, the refrigerant/water heat exchanger 12, the decompression device 4, and the evaporator 5 are connected by pipes. A refrigerant circuit further includes a water supply pump 7 that forms a flow of water passing through the refrigerant/water heat exchanger 12, the water flow rate of the water supply pump 7 being variable; water inlet temperature detection means 8 for detecting a water inlet temperature of the water flowing into the refrigerant/water heat exchanger 12; water outlet temperature detection means 10 for detecting the water outlet temperature of the water flowing out of the refrigerant/water heat exchanger 12; and a controller 15 that performs fixed control for the capacity of the compressor 2 when the water inlet temperature is determined to have reached a preset first temperature, and that performs variable control for the water flow rate of the water supply pump 7 so that the water outlet temperature is made equal to a second temperature, are provided.

IPC 8 full level
F24D 17/02 (2006.01); **F24D 19/10** (2006.01)

CPC (source: EP US)
F24D 17/02 (2013.01 - EP); **F24D 19/1054** (2013.01 - EP US); **F24H 15/215** (2022.01 - EP US); **F24H 15/219** (2022.01 - EP US); **F24H 15/335** (2022.01 - EP US); **F24H 15/38** (2022.01 - EP US); **F24D 2200/123** (2013.01 - EP); **F24D 2220/042** (2013.01 - EP); **F24H 15/281** (2022.01 - EP US)

Cited by
CN107796122A; CN108088086A; CN115507562A; WO2022119436A1

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 2857761 A1 20150408; EP 2857761 B1 20160622; JP 2015072102 A 20150416; JP 6304996 B2 20180404

DOCDB simple family (application)
EP 14162197 A 20140328; JP 2013208484 A 20131003