

Title (en)
HEAT PUMP HOT WATER SUPPLIER

Title (de)
WARMWASSERZUFÜHRER FÜR WÄRMEPUMPE

Title (fr)
DISTRIBUTEUR D'EAU CHAUDE À POMPE À CHALEUR

Publication
EP 3431896 B1 20191106 (EN)

Application
EP 16894400 A 20160317

Priority
JP 2016058439 W 20160317

Abstract (en)
[origin: EP3431896A1] Provided is a heat pump water heater apparatus having a water circuit and a refrigerant circuit thermally connected through a first heat exchanger, the refrigerant circuit circulating carbon dioxide, the first heat exchanger being configured to exchange heat between the water and the carbon dioxide, the refrigerant circuit including a compressor, a refrigerant passage of the first heat exchanger, an expansion valve, and a second heat exchanger, the water circuit including a water passage of the first heat exchanger and a tank, the heat pump water heater apparatus including: a first sensor configured to detect a temperature of the carbon dioxide discharged from the compressor, a second sensor configured to detect a temperature of the water flowing into the water passage; and a third sensor configured to detect a temperature of the water flowing out of the water passage; the expansion valve being opened to have an opening degree to reduce a difference between a first value and a target value, the first value being a difference between a temperature detected by the third sensor and a temperature detected by the first sensor, the target value being determined to be smaller in a case where the temperature detected by the second sensor is a first temperature, than in a case of a second temperature, the second temperature being lower than the first temperature.

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