

Title (en)  
Heat pump hydronic heater

Title (de)  
Kältekreislaufvorrichtung für Wärmepumpen

Title (fr)  
Chauffage hydronique de pompe à chaleur

Publication  
**EP 2530400 A2 20121205 (EN)**

Application  
**EP 12170259 A 20120531**

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JP 2011121359 A 20110531

Abstract (en)  
A heat pump hydronic heater of the present invention includes a refrigerant circuit 8, a circulation pump 16 which circulates a heating medium heated by a water refrigerant heat exchanger to an external radiator, and a cistern 17 in which the heating medium is stored, and the circulation pump 16 is disposed below the cistern 17. A pipe which connects the cistern and the circulation pump to each other can be a short pipe, bending times can be reduced and thus, power of the circulation pump 16 can be reduced and as a result, power consumption can be reduced, energy can be saved and efficiency can be enhanced. Noise and vibration can be reduced, maintenance performance is excellent and the heat pump hydronic heater can be designed compact.

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CPC (source: EP)  
**F24H 4/04** (2013.01); **F24H 9/02** (2013.01); **F24H 9/14** (2013.01)

Citation (applicant)  
• JP 2010144986 A 20100701 - CORONA CORP  
• JP H0449602 B2 19920812

Cited by  
CN107388581A; EP2530398A3; FR3008483A1; CN113720627A; WO2015004101A1

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