

Title (en)

Heat pump with at least two heat sources

Title (de)

Wärmepumpe mit mindestens zwei Wärmequellen

Title (fr)

Pompe à chaleur ayant au moins deux sources de chaleur

Publication

**EP 2781858 A1 20140924 (DE)**

Application

**EP 13160113 A 20130320**

Priority

EP 13160113 A 20130320

Abstract (en)

The heat pump has an evaporator (1), a compressor (2), a condenser (3) and an expansion valve (4). A heat source (6) is provided between the evaporator and the compressor, in which no environmental heat source is arranged. The heat source is arranged in upstream or downstream of the condenser in the heating circuit (10) or a service water line. The heat source has heat exchanger for discharging the heat of electrical or electronic component, preferably regulation or control of power supply of the compressor, an electric heater and/or a circulating pump (7). An independent claim is included for method of operating heat pump.

Abstract (de)

Bei einer Wärmepumpe mit mindestens einem Verdampfer (1), einem Kompressor (2), Kondensator (3) und einem Expansionsventil (4), ist zwischen dem Verdampfer (1) und dem Kompressor (2) und / oder im Heizungskreislauf mindestens eine weitere Wärmequelle (6) angeordnet.

IPC 8 full level

**F25B 30/02** (2006.01)

CPC (source: EP)

**F25B 5/04** (2013.01); **F25B 30/06** (2013.01); **F25B 25/005** (2013.01); **F25B 31/006** (2013.01); **F25B 2313/008** (2013.01); **F25B 2339/047** (2013.01)

Citation (applicant)

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Citation (search report)

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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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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