

Title (en)  
HEAT PUMP APPARATUS

Title (de)  
WÄRMEPUMPENVORRICHTUNG

Title (fr)  
APPAREIL DE TYPE POMPE À CHALEUR

Publication  
**EP 2352952 A4 20120321 (EN)**

Application  
**EP 09822274 A 20091019**

Priority  
• SE 2009051183 W 20091019  
• SE 0802227 A 20081020

Abstract (en)  
[origin: WO2010047650A1] A heat pump apparatus of the split type comprises a heat exchanger ( 14) which has its primary side connected to the refrigerant circulation loop (C) between the exit of the radiator (9) of the indoor unit (9) and the inlet of the outdoor unit ( 1) and has its secondary side connected to a heating element ( 16) in which water is heated. A bypass refrigerant conduit ( 18) is provided to allow the refrigerant to short-circuit the radiator ( 10) of the indoor unit (9) and pass directly to the primary side of the heat exchanger ( 14). A bypass flow control element ( 19) is provided in the bypass conduit ( 18) to control the bypass refrigerant flow through the bypass refrigerant conduit.

IPC 8 full level  
**F24D 3/18** (2006.01); **F24D 12/02** (2006.01); **F24F 5/00** (2006.01); **F24H 6/00** (2006.01); **F25B 6/04** (2006.01); **F25B 30/02** (2006.01)

CPC (source: EP SE)  
**F24D 3/18** (2013.01 - EP SE); **F24D 12/02** (2013.01 - EP); **F24F 5/0096** (2013.01 - EP SE); **F24H 6/00** (2013.01 - EP); **F25B 6/04** (2013.01 - EP); **F25B 30/02** (2013.01 - EP); **F25B 40/00** (2013.01 - SE); **F24D 3/12** (2013.01 - EP); **F24D 2200/06** (2013.01 - EP); **F24D 2200/065** (2013.01 - EP); **F24D 2200/12** (2013.01 - EP); **F25B 2339/047** (2013.01 - EP); **F25B 2400/0403** (2013.01 - EP); **F25B 2700/2104** (2013.01 - EP); **F25B 2700/2106** (2013.01 - EP); **F25B 2700/21152** (2013.01 - EP); **F25B 2700/21163** (2013.01 - EP); **Y02B 30/00** (2013.01 - EP); **Y02B 30/12** (2013.01 - EP)

Citation (search report)  
• [A] JP 2003172523 A 20030620 - MITSUBISHI ELECTRIC CORP  
• [A] JP H01252826 A 19891009 - TOSHIBA CORP  
• [A] DE 2712110 A1 19780921 - BBC YORK KAELE KLIMA  
• [A] EP 1348920 A2 20031001 - GEA HAPPEL KLIMATECHNIK PRODUK [DE]  
• [A] EP 1962024 A2 20080827 - KIOTO CLEAR ENERGY AG [AT]  
• [A] JP 2003050050 A 20030221 - DENSO CORP  
• See also references of WO 2010047650A1

Designated contracting state (EPC)  
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 SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
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DOCDB simple family (application)  
**SE 2009051183 W 20091019**; EP 09822274 A 20091019; SE 0802227 A 20081020; SE 1150271 A 20091019