

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
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• [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)
WO 2010047650 A1 20100429; EP 2352952 A1 20110810; EP 2352952 A4 20120321; SE 0802227 A1 20100421; SE 0802227 A2 20100720; SE 1150271 A1 20110328; SE 535212 C2 20120522

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