

Title (en)
HEAT EXCHANGE APPARATUS

Title (de)
WÄRMEAUSTAUSCHER

Title (fr)
APPAREIL D'ÉCHANGE THERMIQUE

Publication
EP 2697576 A2 20140219 (EN)

Application
EP 12719054 A 20120412

Priority
• JP 2011089175 A 20110413
• IB 2012000724 W 20120412

Abstract (en)
[origin: WO2012140492A2] A heat exchange apparatus 1 that performs heat exchange between a refrigerant and a temperature-adjusted unit 31 includes: a compressor (12) that circulates the refrigerant; a heat exchanger (14) that performs heat exchange between the refrigerant and outside air; an expansion valve (16) that reduces a pressure of the refrigerant; a heat exchanger (18) that performs heat exchange between the refrigerant and air-conditioning air; a cooling passage (32) that forms a path for the refrigerant to flow between the heat exchanger (14) and the expansion valve (16); and a heating passage (33) that forms a path for the refrigerant to flow between the expansion valve (16) and the heat exchanger (18). The temperature-adjusted unit (31) is disposed to be capable of exchanging heat with the refrigerant flowing through the cooling passage (32) and to be capable of exchanging heat with the refrigerant flowing through the heating passage (33).

IPC 8 full level
F25B 13/00 (2006.01); **F25B 40/02** (2006.01)

CPC (source: EP US)
B60H 1/00907 (2013.01 - EP); **F25B 13/00** (2013.01 - EP US); **F25B 30/02** (2013.01 - US); **F25B 40/02** (2013.01 - EP US); **B60H 2001/00928** (2013.01 - EP US); **B60H 2001/00949** (2013.01 - EP US); **F16H 57/0417** (2013.01 - EP US); **F25B 2313/021** (2013.01 - EP US); **F25B 2600/2501** (2013.01 - EP US)

Citation (search report)
See references of WO 2012140492A2

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

DOCDB simple family (publication)
WO 2012140492 A2 20121018; WO 2012140492 A3 20130425; CN 103477162 A 20131225; EP 2697576 A2 20140219; JP 2012218673 A 20121112; JP 5718710 B2 20150513; US 2014116082 A1 20140501

DOCDB simple family (application)
IB 2012000724 W 20120412; CN 201280018221 A 20120412; EP 12719054 A 20120412; JP 2011089175 A 20110413; US 201214111343 A 20120412