Title (en)
HEATING/COOLING DEVICE AND METHOD FOR OPERATING A HEATING/COOLING DEVICE

Title (de)
HEIZ-/KÜHLEINRICHTUNG UND VERFAHREN ZUM BETREIBEN EINER HEIZ-/KÜHLEINRICHTUNG

Title (fr)
DISPOSITIF DE CHAUFFAGE/REFROIDISSEMENT ET SON PROCÉDÉ DE FONCTIONNEMENT

Publication
EP 2608974 A1 20130703 (DE)

Application
EP 11799612 A 20110816

Priority
- DE 102010035272 A 20100824
- DE 2011001619 W 20110816

Abstract (en)
[origin: WO2012025099A1] The invention relates to a heating/cooling device (1) for vehicles, in particular motor vehicles, comprising a compressor (3), a refrigerant circuit (5), a gas cooler (7), an evaporator (9), and an expansion valve (37) arranged in the refrigerant circuit (5) between the gas cooler (7) and the evaporator (9). The heating/cooling device (1) is characterized in that the gas cooler (7) or the evaporator (9) is coupled to a liquid coolant circuit (13, 23), which interacts with an interior heat exchanger (19) or an exterior-air heat exchanger (27) or in that the gas cooler (7) and the evaporator (9) are each coupled to a separate liquid coolant circuit (13, 23), one of the liquid coolant circuits (13, 23) interacting with the interior heat exchanger (19) and the other liquid coolant circuit (23, 13) interacting with the exterior-air heat exchanger (27).

IPC 8 full level
B60H 1/14 (2006.01); **B60H 1/00** (2006.01); **B60H 1/32** (2006.01)

CPC (source: EP KR US)
B60H 1/00 (2013.01 - KR); **B60H 1/00899** (2013.01 - EP US); **B60H 1/14** (2013.01 - US); **B60H 1/32** (2013.01 - KR);
B60H 1/3213 (2013.01 - US); **B60H 1/32284** (2019.04 - EP US); B60H 2001/00307 (2013.01 - EP US); B60H 2001/00928 (2013.01 - EP US);
B60H 2001/00961 (2019.04 - EP US)

Citation (search report)
See references of WO 2012075975A1

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 2012025099 A1 20120301; CN 103068601 A 20130424; CN 103068601 B 20151007; CN 103079853 A 20130501;
DE 112011102775 A5 20130704; DE 112011103960 A5 20130822; EP 2608973 A1 20130703; EP 2608973 B1 20151021;
EP 2608974 A1 20130703; JP 2013536118 A 20130919; JP 2013536119 A 20130919; KR 101457916 B1 20141104;
KR 20130062981 A 20130613; KR 20130101501 A 20130913; US 2013145790 A1 20130613; US 2013146271 A1 20130613;
WO 2012075975 A1 20120614

DOCDB simple family (application)
DE 2011001618 W 20110816; CN 201180041040 A 20110816; CN 201180041165 A 20110816; DE 112011102775 T 20110816;
DE 112011103960 T 20110816; DE 2011001619 W 20110816; EP 11769767 A 20110816; EP 11799612 A 20110816;
JP 2013525136 A 20110816; JP 2013525137 A 20110816; KR 20137004405 A 20110816; KR 20137005215 A 20110816;
US 201113818563 A 20110816; US 201113818584 A 20110816