

Title (en)

AIR-CONDITIONING LOOP PROVIDED WITH A SOLENOID VALVE AND OPERATING AS A HEAT PUMP

Title (de)

KLIMATISIERUNGSKREIS MIT EINEM MAGNETVENTIL UND BETRIEB ALS WÄRMEPUMPE

Title (fr)

BOUCLE DE CLIMATISATION MUNIE D'ÉLECTROVANNE ET FONCTIONNANT COMME POMPE À CHALEUR.

Publication

**EP 2641037 A1 20130925 (FR)**

Application

**EP 11781823 A 20111115**

Priority

- FR 1004504 A 20101119
- EP 2011070110 W 20111115

Abstract (en)

[origin: WO2012065972A1] The invention relates to an automobile air-conditioning loop (1) in which a refrigerant flows, the air-conditioning loop being capable of operating as a heat pump and including: a compressor (2); a first solenoid valve (4) connected to the compressor (2), to a radiator (8), and to an external heat exchanger (10), the radiator (8) being connected to the external heat exchanger (10) via a first pressure-release device (12) and to an evaporator (14) via a second pressure-release device (20), wherein the evaporator (14) is connected to the compressor (2), and the external heat exchanger (10) is connected to the compressor (2) and to the evaporator (14) via a second solenoid valve (22), characterized in that the external heat exchanger (10), the first solenoid valve (4), and the second solenoid valve (22) constitute a unitary part.

IPC 8 full level

**F25B 41/04** (2006.01)

CPC (source: EP US)

**B60H 1/00921** (2013.01 - EP US); **F25B 1/00** (2013.01 - EP US); **F25B 41/20** (2021.01 - EP US); **F25B 41/24** (2021.01 - EP US); **F25B 6/02** (2013.01 - EP US); **F25B 13/00** (2013.01 - EP US); **F25B 39/00** (2013.01 - EP US); **F25B 2313/02732** (2013.01 - EP US); **F25B 2500/18** (2013.01 - EP US)

Citation (search report)

See references of WO 2012065972A1

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 2012065972 A1 20120524**; EP 2641037 A1 20130925; FR 2967760 A1 20120525; FR 2967760 B1 20121221; JP 2013543103 A 20131128; JP 5819433 B2 20151124; US 2013283850 A1 20131031; US 9194614 B2 20151124

DOCDB simple family (application)

**EP 2011070110 W 20111115**; EP 11781823 A 20111115; FR 1004504 A 20101119; JP 2013539226 A 20111115; US 201113988185 A 20111115