

Title (en)

Vapor compression refrigeration circuit and automotive air-conditioning system using same

Title (de)

Dampfkomppressions-Kältekreislauf und Fahrzeugklimaanlagensystem damit

Title (fr)

Circuit frigorifique à compression de vapeur et système de climatisation de véhicule utilisant le circuit frigorifique

Publication

**EP 1867937 A1 20071219 (EN)**

Application

**EP 07011480 A 20070612**

Priority

JP 2006164621 A 20060614

Abstract (en)

A vapor compression refrigeration circuit comprises a compressor (14), a heat radiator (16), a high-temperature section (48) of an internal heat exchanger (28), a pressure reducer (22, 64, 68), an evaporator (18), an accumulator (24) and a low-temperature section (52) of the internal heat exchanger (28) disposed in this order in a circulation passage (4) through which a refrigerant circulates, when viewed along a direction of flow of the refrigerant. The pressure reducer (22, 64, 68), the accumulator (24) and the internal heat exchanger (28) are integrally formed.

IPC 8 full level

**F25B 40/00** (2006.01); **F25B 9/00** (2006.01); **F25B 43/00** (2006.01)

CPC (source: EP US)

**F25B 9/008** (2013.01 - EP US); **F25B 40/00** (2013.01 - EP US); **F25B 43/006** (2013.01 - EP US); **F28D 7/0025** (2013.01 - EP US); **F28D 7/106** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2341/0683** (2013.01 - EP US); **F25B 2400/051** (2013.01 - EP US); **F25B 2500/18** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1867937 A1 20071219**; JP 2007333283 A 20071227; JP 4842022 B2 20111221; US 2008173042 A1 20080724

DOCDB simple family (application)

**EP 07011480 A 20070612**; JP 2006164621 A 20060614; US 81076407 A 20070607