

Title (en)  
Vapor compression refrigerating systems

Title (de)  
Dampfkompensionssystem

Title (fr)  
Système de réfrigération par compression de vapeur

Publication  
**EP 1798498 A2 20070620 (EN)**

Application  
**EP 06125926 A 20061212**

Priority  
JP 2005358659 A 20051213

Abstract (en)  
A vapor compression refrigerating system includes a compressor configured to compress a refrigerant, and a radiator connected to the compressor, in which the radiator is configured to receive the refrigerant from the compressor and to reduce a temperature of the refrigerant. The system also includes a pressure reducing mechanism connected to the radiator, and the pressure reducing mechanism is configured to receive the refrigerant from the radiator and to reduce a pressure of the refrigerant. The system also includes a separator connected to the pressure reducing mechanism and to the compressor, a pump connected to the separator, and an evaporator connected to the pump and to the separator. The separator is configured to receive the refrigerant from the pressure reducing mechanism, to separate a liquid portion of the refrigerant from a gas portion of the refrigerant, and to transmit the gas portion to the compressor. Moreover, the pump is configured to pump the liquid portion from the separator to the evaporator, and the evaporator is configured to evaporate the liquid portion into an evaporated portion, and to transmit the evaporated portion to the separator.

IPC 8 full level  
**F25B 9/00** (2006.01)

CPC (source: EP US)  
**F25B 9/008** (2013.01 - EP US); **F25B 9/06** (2013.01 - EP US); **F25B 41/00** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US); **F25B 2600/2501** (2013.01 - EP US)

Cited by  
EP3159627A1; WO2009128097A1; WO2009117796A1; WO2009122455A1

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 NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1798498 A2 20070620**; **EP 1798498 A3 20080709**; JP 2007163005 A 20070628; JP 4897284 B2 20120314; US 2007130989 A1 20070614

DOCDB simple family (application)  
**EP 06125926 A 20061212**; JP 2005358659 A 20051213; US 61003006 A 20061213