

Title (en)
Refrigerating apparatus

Title (de)
Kühlvorrichtung

Title (fr)
Appareil de réfrigération

Publication
EP 2333459 A3 20110921 (EN)

Application
EP 10015097 A 20101129

Priority
JP 2009272410 A 20091130

Abstract (en)
[origin: EP2333459A2] There is disclosed a refrigerating apparatus which can more efficiently cool the inside of a chamber to an ultralow temperature. In a refrigerating apparatus R1 which condenses a refrigerant discharged from a compressor 14, reduces a pressure of the refrigerant by a capillary tube 18 and evaporates the refrigerant by an evaporator 13 to exert a cooling function, the capillary tube 18 is passed through a suction piping line 32 through which the refrigerant returning from the evaporator 13 to the compressor 14 flows, to constitute a double tube structure. Furthermore, the suction piping line 32 (a piping line 32A) formed in the double tube structure by passing the capillary tube 18 therethrough is surrounded with an insulating material 35.

IPC 8 full level
F25B 40/00 (2006.01); **F25B 7/00** (2006.01); **F25B 9/00** (2006.01); **F25B 41/06** (2006.01)

CPC (source: EP KR US)
F25B 7/00 (2013.01 - EP KR US); **F25B 9/006** (2013.01 - EP KR US); **F25B 40/00** (2013.01 - EP KR US); **F25B 41/37** (2021.01 - EP KR US); **F25B 2400/052** (2013.01 - EP KR US); **F25B 2400/054** (2013.01 - EP KR US)

Citation (search report)

- [XY] FR 1362140 A 19640529
- [X] EP 1477749 A1 20041117 - NOVOA SERGIO DANIEL [AR]
- [Y] US 3733845 A 19730522 - LIEBERMAN D
- [Y] EP 2019271 A1 20090128 - SANYO ELECTRIC CO [JP]
- [Y] EP 1441187 A2 20040728 - SAMSUNG ELECTRONICS CO LTD [KR]
- [Y] US 4147037 A 19790403 - GELBARD ROBERT B, et al

Cited by
CN1052472C; EP3037744A4; EP4137754A4; WO2015176939A1; WO2013000758A3

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

Designated extension state (EPC)
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DOCDB simple family (application)
EP 10015097 A 20101129; CN 201010501596 A 20100930; JP 2009272410 A 20091130; KR 20100095244 A 20100930; US 90958110 A 20101021