

Title (en)
REFRIGERATION DEVICE

Title (de)
KÜHLVORRICHTUNG

Title (fr)
DISPOSITIF DE RÉFRIGÉRATION

Publication
EP 2230471 A4 20110209 (EN)

Application
EP 08854068 A 20081126

Priority
• JP 2008071362 W 20081126
• JP 2007311692 A 20071130

Abstract (en)
[origin: EP2230471A1] An air-conditioning apparatus (1) uses carbon dioxide as a refrigerant, and has a two-stage compression-type compression mechanism (2), a heat source-side heat exchanger (4), an expansion mechanism (5), a usage-side heat exchanger (6), an intercooler (7) which is provided to an intermediate refrigerant tube (8) for drawing refrigerant discharged from a first-stage compression element into a second-stage compression element and which functions as a cooler of refrigerant discharged from the first-stage compression element and drawn into a second-stage compression element, and an intermediate oil separation mechanism (16) for separating from the refrigerant a refrigeration oil that accompanies the refrigerant discharged from the first-stage compression element and for returning the refrigeration oil to the intake side of the compression mechanism (2), the intermediate oil separation mechanism being provided to a section of the intermediate refrigerant tube (8) between the first-stage compression element and an inlet of the intercooler (7).

IPC 8 full level
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CPC (source: EP US)
F25B 1/10 (2013.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 31/004** (2013.01 - EP US); **F25B 13/00** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2400/072** (2013.01 - EP US); **F25B 2400/075** (2013.01 - EP US); **F25B 2400/13** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US)

Citation (search report)
• [Y] US 2006086110 A1 20060427 - MANOLE DAN M [US]
• [Y] SU 1783260 A1
• See references of WO 2009069604A1

Cited by
EP2930449A4

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