

Title (en)
REFRIGERATION DEVICE

Title (de)
KÜHLVORRICHTUNG

Title (fr)
DISPOSITIF DE RÉFRIGÉRATION

Publication
EP 1990587 B1 20190417 (EN)

Application
EP 07714753 A 20070222

Priority
• JP 2007053255 W 20070222
• JP 2006053431 A 20060228

Abstract (en)
[origin: EP1990587A1] A refrigerant circuit (10) includes a gas-liquid separator (15) and a compressor (30) including a low pressure side compression mechanism (34) and a high pressure side compression mechanism (35) connected to each other by means of a drive shaft (33). In the refrigerant circuit (10), a two-stage compression/two-stage expansion refrigeration cycle is performed with CO₂ refrigerant utilized as that at its critical pressure. In the compressor (30), a volume ratio V₂/V₁ of the displacement volume V₂ of the second compression mechanism (35) to that V₁ of the first compression mechanism is set within a range between 0.8 and 1.3, both exclusive.

IPC 8 full level
F25B 1/00 (2006.01); **F25B 1/04** (2006.01); **F25B 1/10** (2006.01)

CPC (source: EP KR US)
F25B 1/00 (2013.01 - KR); **F25B 1/04** (2013.01 - KR); **F25B 1/10** (2013.01 - EP KR US); **F25B 9/008** (2013.01 - EP US); **F25B 13/00** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2313/0272** (2013.01 - EP US); **F25B 2313/02741** (2013.01 - EP US); **F25B 2400/13** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US)

Cited by
US2011232325A1; US9068765B2; WO2011091014A3; EP2339272A1

Designated contracting state (EPC)
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