

Title (en)  
Refrigeration apparatus

Title (de)  
Kühlvorrichtung

Title (fr)  
Appareil de réfrigération

Publication  
**EP 2196747 A1 20100616 (EN)**

Application  
**EP 09252757 A 20091209**

Priority  
JP 2008315651 A 20081211

Abstract (en)  
In the case where one compressor that is operated by being connected in parallel is a compressor in which the discharged oil amount is small, and the other compressor is a compressor in which the discharged oil amount is large, the amounts of refrigerator oil in the compressors are made approximately equal. In the refrigeration apparatus in which an outdoor unit 100 includes at least two compressors, a first compressor 110 and a second compressor 120, which are connected in parallel with each other; an oil separator 111, 121 is provided in a discharge pipe of each of the compressors 110 and 120; and a first oil separator 111 on the first compressor side is connected to a suction pipe 164 of the second compressor 120 via first oil return piping 114, and a second oil separator 121 on the second compressor side is connected to a suction pipe 163 of the first compressor 110 via second oil return piping 124, a rotary compressor is used as the first compressor 110, and a scroll compressor is used as the second compressor 120; and an oil storage part 110b of the first compressor 110 is connected to the suction pipe 164 of the second compressor 120 via an oil guiding pipe 118.

IPC 8 full level  
**F25B 31/00** (2006.01)

CPC (source: EP US)  
**F25B 31/004** (2013.01 - EP US); **F25B 2313/0233** (2013.01 - EP US); **F25B 2400/0751** (2013.01 - EP US); **F25B 2500/16** (2013.01 - EP US)

Citation (applicant)  
JP 2001324230 A 20011122 - DAIKIN IND LTD

Citation (search report)  
• [X] US 2008087028 A1 20080417 - KIM IN KYU [KR], et al  
• [Y] EP 1508757 A1 20050223 - DAIKIN IND LTD [JP]  
• [Y] JP H11201566 A 19990730 - MATSUSHITA REFRIGERATION  
• [Y] EP 1795832 A1 20070613 - DAIKIN IND LTD [JP]  
• [Y] JP 2005283067 A 20051013 - MITSUBISHI HEAVY IND LTD

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Designated extension state (EPC)  
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US 59185609 A 20091203