

Title (en)  
REFRIGERATION DEVICE

Title (de)  
KÜHLVORRICHTUNG

Title (fr)  
DISPOSITIF DE REFROIDISSEMENT

Publication  
**EP 2251622 A4 20170329 (EN)**

Application  
**EP 09705691 A 20090127**

Priority  
• JP 2009051235 W 20090127  
• JP 2008019764 A 20080130

Abstract (en)  
[origin: EP2251622A1] In a refrigeration apparatus that carries out a multistage compression refrigeration cycle, it is possible to prevent refrigerant drawn into a second-stage compression element from becoming wet, even under operation conditions in which the temperature of a heat source of the intercooler is low. An air-conditioning apparatus (1) has a two-stage compression mechanism (2); a heat source-side heat exchanger (4); 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 (2c) into a second-stage compression element (2d); and an intercooler bypass tube (9) connected to the intermediate refrigerant tube (8) so as to bypass the intercooler (7). In the air-conditioning apparatus (1), a wet prevention control is performed using the intercooler bypass tube (9) so that refrigerant does not flow to the intercooler (7) when the heat source temperature of the intercooler (7) or the outlet refrigerant temperature of the intercooler (7) is equal to or less than the saturation temperature of the refrigerant fed from the first-stage compression element (2c) to the second-stage compression element (2d).

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

CPC (source: EP US)  
**F25B 1/10** (2013.01 - EP 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 2400/04** (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); **F25B 2500/28** (2013.01 - EP US); **F25B 2700/21** (2013.01 - EP US)

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