

Title (en)  
Refrigeration cycle using a non-azeotrope refrigerant

Title (de)  
Kältekreislauf mit zeotropem Kältemittel

Title (fr)  
Cycle frigorifique utilisant un frigorigène zéotropique

Publication  
**EP 0838643 A2 19980429 (EN)**

Application  
**EP 98101094 A 19940621**

Priority  
• EP 94109583 A 19940621  
• JP 15324693 A 19930624

Abstract (en)  
A refrigeration cycle using a non-azeotrope refrigerant comprises a compressor (1), a heat-source-side heat exchanger (2), a use-side heat exchanger (20a, 20b), a refrigerant pressure reducing apparatus (7), a refrigerant receiver (6) disposed between a side of said heat-source-side heat exchanger (2) and said use-side heat exchanger (20a, 20b), whereby said side is opposite to another side of said heat-source-side heat exchanger (2) connected to said compressor (1), a composition ratio detecting means (8) arranged for detecting a composition ratio of the refrigerant, and composition ratio control means (10 to 15, 40 to 44). The composition ratio detecting means (8) is disposed between said heat-source-side heat exchanger (2) and said receiver (6). The composition ratio control means (10 to 15, 40 to 44) are arranged for taking out gas refrigerant from said receiver (6) on the basis of the composition ratio of the refrigerant detected by said composition ratio detecting means (8) so as to vary the refrigerant composition ratio mainly used in said refrigeration cycle. <IMAGE>

IPC 1-7  
**F25B 49/02**

IPC 8 full level  
**F25B 1/00** (2006.01); **F25B 5/00** (2006.01); **F25B 9/00** (2006.01); **F25B 13/00** (2006.01)

CPC (source: EP)  
**F25B 9/006** (2013.01); **F25B 13/00** (2013.01); **F25B 2400/13** (2013.01); **F25B 2400/16** (2013.01)

Citation (applicant)  
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• JP S61213554 A 19860922 - MATSUSHITA ELECTRIC IND CO LTD  
• JP S6458964 A 19890306 - DAIKIN IND LTD  
• US 5186012 A 19930216 - CZACHORSKI MAREK [US], et al

Cited by  
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**EP 0631095 A2 19941228**; **EP 0631095 A3 19950301**; **EP 0631095 B1 20000112**; DE 69422551 D1 20000217; DE 69422551 T2 20000803; DE 69432489 D1 20030515; DE 69432489 T2 20040212; EP 0838643 A2 19980429; EP 0838643 A3 20001115; EP 0838643 B1 20030409; JP H0712411 A 19950117

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