

Title (en)
Air conditioner

Title (de)
Klimaanlage

Title (fr)
Climatiseur

Publication
EP 1686333 A3 20090422 (EN)

Application
EP 05109697 A 20051018

Priority
KR 20050002622 A 20050111

Abstract (en)
[origin: EP1686333A2] A refrigerating cycle having compressors (1a,1b) and flexibly adapting to refrigeration load is disclosed. The cycle includes a main compressor (1a) compressing refrigerant, an auxiliary compressor (1b) selectively operated based on refrigeration load to compress refrigerant, an accumulator (6) having a main suction pipe guiding refrigerant to the main compressor (1a) and an auxiliary suction pipe (7c) guiding refrigerant to the auxiliary compressor (1b), an oil introducing hole guiding oil to the main compressor (1a), and an oil delivery pipe (7e) guiding oil to the auxiliary compressor (1b). When only the main compressor (1a) operates, oil is returned to the main compressor (1a) to maintain a predetermined height of oil in the main compressor (1a). When both compressors (1a,1b) are operated, more oil is supplied to the main compressor (1a) and excess oil is delivered to the auxiliary compressor (1b) such that oil in the compressors can be maintained at the predetermined height. Thus, oil-shortage in the compressors (1a,1b) is prevented by a simple mechanical structure.

IPC 8 full level
F25B 31/00 (2006.01); **F25B 41/00** (2006.01)

CPC (source: EP KR US)
F25B 31/004 (2013.01 - EP US); **F25B 41/40** (2021.01 - EP KR US); **F25B 43/00** (2013.01 - KR); **F25B 43/02** (2013.01 - KR); **F25B 43/02** (2013.01 - EP); **F25B 2400/075** (2013.01 - EP)

Citation (search report)

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- [Y] JP H08189732 A 19960723 - MITSUBISHI HEAVY IND LTD
- [A] GB 2159260 A 19851127 - MITSUBISHI ELECTRIC CORP
- [A] WO 03083380 A1 20031009 - DAIKIN IND LTD [JP], et al
- [A] A.D.ALTHOUSE ET AL.: "Modern Refrigeration and Air Conditioning", 2000, THE GOODHEART-WILLCOX COMPANY, INC., XP002506475

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1686333 A2 20060802; EP 1686333 A3 20090422; EP 1686333 B1 20120523; CN 100360877 C 20080109; CN 1804513 A 20060719; KR 20060081937 A 20060714

DOCDB simple family (application)
EP 05109697 A 20051018; CN 200510116435 A 20051020; KR 20050002622 A 20050111