

Title (en)
Air conditioning system

Title (de)
Klimaanlage

Title (fr)
Installation de climatisation

Publication
EP 1553365 A3 20120620 (EN)

Application
EP 04251797 A 20040326

Priority
KR 20040000685 A 20040106

Abstract (en)
[origin: EP1553365A2] An air conditioning system for heating and cooling air. The air conditioning system, which is provided with a compressor (10) for compressing a refrigerant, an outdoor heat exchanger (11) for heat-exchanging the refrigerant with outdoor air, an indoor heat exchanger (12) for heat-exchanging the refrigerant with indoor air, a four-way valve (13) for converting the direction of a refrigerant flow, a refrigerant expansion device (19) installed in a refrigerant pipe connecting the outdoor heat exchanger and the indoor heat exchanger, and a vapour-liquid separator (20) installed in a refrigerant pipe connecting the refrigerant expansion device and the indoor heat exchanger, includes a liquid refrigerant supply pipe (25) connecting the vapour-liquid separator and an inlet of the compressor for supplying the refrigerant in a liquid state within the vapour-liquid separator to the inlet of the compressor, and a liquid refrigerant supply valve (26) for controlling the supply of the refrigerant in the liquid state through the liquid refrigerant supply pipe. The air conditioning system has an improved capacity and reduces a compression ratio and a discharge temperature of the compressor in a heating mode under the condition that an outdoor temperature is extremely low, thus increasing reliability of the compressor.

IPC 8 full level
F25B 13/00 (2006.01); **F25B 1/04** (2006.01); **F25B 1/10** (2006.01); **F25B 41/04** (2006.01)

CPC (source: EP KR US)
F25B 1/04 (2013.01 - EP KR); **F25B 1/10** (2013.01 - EP KR); **F25B 13/00** (2013.01 - EP KR US); **F25B 41/20** (2021.01 - EP KR US); **F25B 2400/23** (2013.01 - EP KR); **F25B 2500/02** (2013.01 - EP KR)

Citation (search report)

- [X] EP 0725255 A2 19960807 - HITACHI LTD [JP]
- [X] EP 0631095 A2 19941228 - HITACHI LTD [JP]
- [XI] WO 9007683 A1 19900712 - SINVENT AS [NO], et al
- [X] JP 2001263859 A 20010926 - HITACHI LTD

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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

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