

Title (en)
Heating and cooling system

Title (de)
Heiz- und kühlssystem

Title (fr)
Système de chauffage et de refroidissement

Publication
EP 1555494 B1 20081015 (EN)

Application
EP 04253026 A 20040521

Priority
KR 20040002288 A 20040113

Abstract (en)
[origin: EP1555494A2] A heating and cooling system for preventing the deterioration of heating efficiency generated due to a subsidiary heat exchanger (8) used to increase cooling efficiency. The heating and cooling system includes a compressor (1) for compressing a refrigerant, an indoor heat exchanger (4) for heat-exchanging the refrigerant with indoor air, an outdoor heat exchanger (3) for heat-exchanging the refrigerant with an outdoor air, a four-way valve (2) disposed at an outlet of the compressor (1) for selectively discharging the refrigerant to one of the indoor (4) and outdoor heat exchangers (3) according to heating and cooling modes, an expansion valve (5) for decompressing and expanding the refrigerant, an inlet refrigerant pipe for guiding the refrigerant drawn into the compressor (1), a subsidiary heat exchanger (8) disposed in the inlet refrigerant pipe for heat-exchanging the refrigerant passing through the inlet refrigerant pipe and the refrigerant passing through a connection refrigerant pipe in the cooling mode so as to control the temperature of the refrigerant drawn into the compressor (1), and a bypass refrigerant pipe (9) for allowing the refrigerant drawn into the compressor (1) to bypass the subsidiary heat exchanger (8) and then to be directed into the compressor (1).

IPC 8 full level
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Cited by
EP2623873A3; US10578344B2; WO2009100501A1; US10018385B2; US10823465B2; US10119059B2; US10808159B2

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