

Title (en)
Heat pump

Title (de)
Wärmepumpe

Title (fr)
Pompe à chaleur

Publication
EP 1580496 A2 20050928 (EN)

Application
EP 04103085 A 20040630

Priority
KR 20040019700 A 20040323

Abstract (en)
A refrigerator and a control method thereof in which a smooth flow of a refrigerant can be provided through an effective control for a path change valve (310) when a flow path of the refrigerant is changed between two evaporators (205,207) equipped in the refrigerator by the path change valve (310). The refrigerator includes a refrigerating compartment evaporator (205), a freezing compartment evaporator (207), a first expansion device (304) adapted to expand a flow of a refrigerant to be introduced into the refrigerating compartment evaporator (205), a second expansion device (308) adapted to expand a flow of the refrigerant to be introduced into the freezing compartment evaporator (207), a path change device (310) adapted to change a flow path of the refrigerant between the first expansion device (304) and the second expansion device (308), and a control unit adapted to control the path change device so that, when the refrigerant flow path is changed from the second expansion device (308) to the first expansion device (304), a simultaneous opening stage causing the refrigerant to be introduced into both the first expansion device (304) and the second expansion device (308) is maintained for a predetermined time. <IMAGE>

IPC 1-7
F25B 5/04; **F25B 41/06**; **F25B 41/04**

IPC 8 full level
F25B 5/04 (2006.01); **F25B 41/04** (2006.01); **F25B 41/06** (2006.01); **F25D 17/06** (2006.01)

CPC (source: EP KR US)
F25B 5/04 (2013.01 - EP US); **F25B 41/00** (2013.01 - KR); **F25B 41/20** (2021.01 - EP KR US); **F25D 11/00** (2013.01 - KR);
F25B 2400/0409 (2013.01 - EP US); **F25B 2600/2511** (2013.01 - EP US); **F25B 2700/2117** (2013.01 - EP US); **F25D 2700/12** (2013.01 - EP US);
F25D 2700/122 (2013.01 - EP US)

Cited by
EP2218986A3

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1580496 A2 20050928; **EP 1580496 A3 20051123**; **EP 1580496 B1 20080109**; CN 1673653 A 20050928; DE 602004011180 D1 20080221;
DE 602004011180 T2 20081224; KR 100648943 B1 20061127; KR 20060043709 A 20060515; US 2005210898 A1 20050929

DOCDB simple family (application)
EP 04103085 A 20040630; CN 200410049552 A 20040616; DE 602004011180 T 20040630; KR 20050021920 A 20050316;
US 81479904 A 20040401