

Title (en)
HEATING METHOD AND BI-MODAL HEATING SYSTEM FOR HEATING OF BUILDINGS

Publication
EP 0001858 B1 19810401 (DE)

Application
EP 78200266 A 19781027

Priority
DE 2748415 A 19771028

Abstract (en)
[origin: US4394959A] An improved multimode heat-pump type heating system designed to heat a plurality of rooms efficiently under a variety of ambient temperature conditions. When in its first mode the heat pump system employs an operating fluid, such as ammonia, and an absorbing liquid, such as water. The ammonia is initially evaporated in a cold heat source so as to absorb or extract heat therefrom. It is then absorbed by the absorbing liquid and both transported to a boiler where the two are again separated. The absorbing liquid returns to the absorbing area while the operating fluid flows to a condenser and condensed after which it is returned directly to the evaporator. A plurality of heat exchangers are used to transfer heat from the operating fluid, the absorbing liquid or the system to a room heating fluid. In the second mode, the evaporator and absorbing portions of the system are bypassed and only the operating fluid circulates from the condenser to the boiler past heat exchangers in order to heat the operating fluid. The system switches to the second mode when ambient temperatures fall below a preselected temperature or when pressure in the evaporator drops below a predetermined level.

IPC 1-7
F24J 3/04; **F25B 29/00**

IPC 8 full level
F24D 3/00 (2006.01); **F24F 5/00** (2006.01); **F24D 7/00** (2006.01); **F25B 15/00** (2006.01); **F25B 30/04** (2006.01)

CPC (source: EP US)
F25B 30/04 (2013.01 - EP US)

Cited by
EP2372273A1; EP0035873A3; EP0038990A3; EP0107880A1; EP0039545A3; EP0124632A1; DE3201349A1; EP0322476A1; ITMI20100459A1; WO8203265A1; WO8203266A1; US8950212B2

Designated contracting state (EPC)
BE FR GB

DOCDB simple family (publication)
EP 0001858 A1 19790516; **EP 0001858 B1 19810401**; DE 2748415 A1 19790503; DE 2748415 C2 19861009; IT 1106068 B 19851111; IT 7851692 A0 19781027; JP S54109237 A 19790827; JP S6222054 B2 19870515; US 4394959 A 19830726

DOCDB simple family (application)
EP 78200266 A 19781027; DE 2748415 A 19771028; IT 5169278 A 19781027; JP 13210578 A 19781026; US 21348680 A 19801205