

Title (en)

INTEGRATED HEAT PUMP SYSTEM AND CONTROL METHOD THEREFOR

Title (de)

INTEGRIERTES WÄRMEPUMPENSYSTEM UND STEUERUNGSVERFAHREN DAFÜR

Title (fr)

SYSTÈME DE POMPE À CHALEUR INTÉGRÉE ET SON PROCÉDÉ DE COMMANDE

Publication

**EP 4040072 A1 20220810 (EN)**

Application

**EP 22161182 A 20201215**

Priority

- EP 20214317 A 20201215
- CN 202010162191 A 20200310

Abstract (en)

The present application provides an integrated heat pump system and a control method therefor. The integrated heat pump system (100) comprises: an air-conditioning indoor unit (110) having a first indoor heat exchanger set (111a, 111b) and a first throttle valve assembly (112a, 112b); a display cabinet indoor unit (120) having a second indoor heat exchanger set (121a, 121b) and a second throttle valve assembly (122a, 122b); and an outdoor unit (130) connected to the air-conditioning indoor unit and the display cabinet indoor unit through pipelines. The outdoor unit comprises: at least two compressors (133a, 133b); an outdoor heat exchanger set (131); a third throttle valve assembly (132); and a mode switch valve assembly configured to switch at least one of the first indoor heat exchanger set and the outdoor heat exchanger set to be connected to the downstream of at least two compressors.

IPC 8 full level

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CPC (source: CN EP)

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**F25B 2400/075** (2013.01 - EP)

Citation (search report)

- [XA] EP 2863153 A1 20150422 - DAIKIN IND LTD [JP], et al
- [A] EP 2236957 A2 20101006 - HITACHI APPLIANCES INC [JP]
- [A] EP 2314954 A1 20110427 - DAIKIN IND LTD [JP]

Cited by

EP4328526A1

Designated contracting state (EPC)

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**EP 3879204 A1 20210915; EP 3879204 B1 20230517**; CN 113375376 A 20210910; EP 4040072 A1 20220810; EP 4040072 B1 20240605

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