

Title (en)
HEAT VENTILATION AND AIR CONDITIONING UNIT

Title (de)
WÄRMEABZUGS- UND KLIMAAANLAGENANORDNUNG

Title (fr)
UNITÉ DE CHAUFFAGE, DE VENTILATION ET DE CLIMATISATION

Publication
EP 4242552 A1 20230913 (EN)

Application
EP 22160531 A 20220307

Priority
EP 22160531 A 20220307

Abstract (en)
A heat ventilation and air conditioning (HVAC) unit (100) is disclosed. The HVAC unit (100) includes a compressor (102), a condenser (104), a first expansion device (106), a second expansion device (118), a third expansion device (120), an evaporator (108), a heat recovery unit (110), a first 4-way valve (112), a second 4-way valve (114), a one-way valve (118) and a controller (124). The controller (124) determines a first discharge superheat temperature for the refrigerant entering the evaporator (108) and a second discharge superheat temperature for the refrigerant entering the heat recovery unit (110) and adjust the first flow rate and the second flow rate to maintain ideal heat distribution between the heat recovery unit (110) and the evaporator (108).

IPC 8 full level
F25B 13/00 (2006.01); **F25B 41/22** (2021.01); **F25B 49/02** (2006.01)

CPC (source: EP)
F25B 13/00 (2013.01); **F25B 41/22** (2021.01); **F25B 49/02** (2013.01); **F25B 2313/0233** (2013.01); **F25B 2313/02732** (2013.01); **F25B 2313/02742** (2013.01); **F25B 2313/0315** (2013.01); **F25B 2700/1931** (2013.01); **F25B 2700/21152** (2013.01)

Citation (search report)

- [X] US 2013145785 A1 20130613 - NOBUHIRO NAKAGAWA [JP]
- [A] EP 3348934 A1 20180718 - HITACHI JOHNSON CONTROLS AIR CONDITIONING INC [JP]
- [A] WO 2021039087 A1 20210304 - DAIKIN IND LTD [JP]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4242552 A1 20230913

DOCDB simple family (application)
EP 22160531 A 20220307