

Title (en)
HEAT PUMP CHILLING SYSTEM AND CONTROL METHOD THEREFOR

Title (de)
WÄRMEPUMPENKÜHLSYSTEM UND STEUERUNGSVERFAHREN DAFÜR

Title (fr)
SYSTÈME DE REFROIDISSEMENT DE POMPE À CHALEUR ET PROCÉDÉ DE COMMANDE ASSOCIÉ

Publication
EP 3136013 A4 20171227 (EN)

Application
EP 14890292 A 20140425

Priority
JP 2014061795 W 20140425

Abstract (en)
[origin: EP3136013A1] A heat pump chilling system includes an inlet temperature sensor that detects an inlet temperature of a heat medium flowing into a plurality of heat pump chilling devices, an outlet temperature sensor that detects an outlet temperature of flow from the plurality of heat pump chilling devices to a load, and a system control device that controls operation of the plurality of heat pump chilling devices based on the inlet temperature and the outlet temperature. The system control device includes a storage unit that stores an operating capacity for each of the plurality of heat pump chilling devices, a requested-capacity calculating unit that calculates a requested capacity based on the inlet temperature or the outlet temperature and a set target temperature, a number-of-devices calculating unit that calculates the number of devices to be activated among the plurality of heat pump chilling devices satisfying the requested capacity based on the operating capacity of each of the plurality of heat pump chilling devices, and an activation control unit that activates the plurality of heat pump chilling devices of the number of devices to be activated calculated in the number-of-devices calculating unit.

IPC 8 full level
F24H 1/00 (2006.01); **F24D 17/02** (2006.01); **F24F 3/00** (2006.01); **F25B 1/00** (2006.01); **F25B 30/02** (2006.01)

CPC (source: EP)
F24D 17/02 (2013.01); **F24F 3/001** (2013.01); **F25B 25/005** (2013.01); **F25B 30/02** (2013.01); **F25B 49/02** (2013.01); **F24D 2200/123** (2013.01); **F24F 2203/02** (2013.01)

Citation (search report)

- [A] JP S63140236 A 19880611 - HITACHI LTD, et al
- [A] EP 2397786 A1 20111221 - TOSHIBA CARRIER CORP [JP]
- [A] US 2011315093 A1 20111229 - MINAMISAKO HIROKAZU [JP], et al
- [A] JP 2008267708 A 20081106 - MATSUSHITA ELECTRIC WORKS LTD
- [A] JP H0783505 A 19950328 - GASTAR CORP
- See references of WO 2015162798A1

Cited by
CN110285481A; WO2020231725A1; US10676779B2

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

DOCDB simple family (publication)
EP 3136013 A1 20170301; **EP 3136013 A4 20171227**; **EP 3136013 B1 20230222**; JP 6261724 B2 20180117; JP WO2015162798 A1 20170413; WO 2015162798 A1 20151029

DOCDB simple family (application)
EP 14890292 A 20140425; JP 2014061795 W 20140425; JP 2016514676 A 20140425