

Title (en)
CHILLING UNIT AND AIR CONDITIONING DEVICE

Title (de)
KÜHLEINHEIT UND KLIMATISIERUNGSVORRICHTUNG

Title (fr)
UNITÉ DE REFROIDISSEMENT ET DISPOSITIF DE CONDITIONNEMENT D'AIR

Publication
EP 4012277 A4 20220817 (EN)

Application
EP 19940671 A 20190807

Priority
JP 2019031089 W 20190807

Abstract (en)
[origin: EP4012277A1] A chilling unit of the present disclosure includes a machine chamber being a housing with a rectangular bottom and accommodating therein devices forming each of a plurality of systems of refrigerant circuits, a plurality of heat-medium heat exchangers, each being configured to exchange heat between refrigerant and a heat medium serving as a heat delivering medium through the plurality of systems of refrigerant circuits, and each being configured to serve as a part of the devices forming the refrigerant circuits, and a plurality of refrigerant circuit-side control boxes, each including an electric device configured to drive and control the devices forming the refrigerant circuits, wherein the plurality of refrigerant circuit-side control boxes are located next to each other in the machine chamber in a longitudinal direction thereof alongside one of longitudinal sides of the machine chamber.

IPC 8 full level
F24F 1/22 (2011.01); **F25B 49/02** (2006.01)

CPC (source: EP)
F24F 1/22 (2013.01); **F24F 1/46** (2013.01); **F24F 1/50** (2013.01); **F25B 13/00** (2013.01); **F25B 2313/003** (2013.01); **F25B 2400/06** (2013.01);
F25B 2400/075 (2013.01)

Citation (search report)
• [Y] WO 2019138910 A1 20190718 - MITSUBISHI HEAVY IND THERMAL SYSTEMS LTD [JP]
• [Y] JP 2014206330 A 20141030 - DAIKIN IND LTD
• [A] WO 2018062054 A1 20180405 - TOSHIBA CARRIER CORP [JP]
• [A] EP 2461111 A1 20120606 - TOSHIBA CARRIER CORP [JP]
• [A] WO 2013046725 A1 20130404 - DAIKIN IND LTD [JP]
• [A] JP 2018189283 A 20181129 - MITSUBISHI HEAVY IND THERMAL SYSTEMS LTD
• See also references of WO 2021024412A1

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

DOCDB simple family (publication)
EP 4012277 A1 20220615; EP 4012277 A4 20220817; JP 7158590 B2 20221021; JP WO2021024412 A1 20211223;
WO 2021024412 A1 20210211

DOCDB simple family (application)
EP 19940671 A 20190807; JP 2019031089 W 20190807; JP 2021538616 A 20190807