

Title (en)
REFRIGERATION DEVICE

Title (de)
KÜHLVORRICHTUNG

Title (fr)
DISPOSITIF DE RÉFRIGÉRATION

Publication
EP 4060263 A4 20221221 (EN)

Application
EP 20903465 A 20201202

Priority
• JP 2019228077 A 20191218
• JP 2020044819 W 20201202

Abstract (en)
[origin: EP4060263A1] A refrigeration apparatus includes: a housing that surrounds an internal space (refrigeration chamber) where a refrigeration target is stored; and a negative pressure release port that includes a pipe (cylindrical body) attached to the housing so as to protrude into the internal space, a heating element provided in the pipe, and a rib joining the pipe and the heating element.

IPC 8 full level
F25D 23/00 (2006.01)

CPC (source: EP US)
F25D 17/047 (2013.01 - EP US); **F25D 21/08** (2013.01 - US); **F25D 23/028** (2013.01 - US); **F25D 23/025** (2013.01 - EP US);
F25D 2317/043 (2013.01 - US); **F25D 2400/02** (2013.01 - EP US); **F25D 2400/04** (2013.01 - US)

Citation (search report)
• [XA] US 6176776 B1 20010123 - FINKELSTEIN BURL [US], et al
• [X] WO 2018047624 A1 20180315 - PANASONIC HEALTHCARE HOLDINGS CO LTD [JP]
• [A] FR 2932239 A1 20091211 - FERMOD [FR]
• [A] EP 3308086 A1 20180418 - IK INTERKLIMAT SPA [IT]
• See also references of WO 2021124890A1

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 4060263 A1 20220921; **EP 4060263 A4 20221221**; **EP 4060263 B1 20240221**; CN 114829857 A 20220729; JP 7329076 B2 20230817;
JP WO2021124890 A1 20210624; US 2022307754 A1 20220929; WO 2021124890 A1 20210624

DOCDB simple family (application)
EP 20903465 A 20201202; CN 202080086567 A 20201202; JP 2020044819 W 20201202; JP 2021565448 A 20201202;
US 202217841272 A 20220615