

Title (en)
REFRIGERATION DEVICE

Title (de)
KÜHLVORRICHTUNG

Title (fr)
DISPOSITIF DE RÉFRIGÉRATION

Publication
EP 3339761 A4 20180808 (EN)

Application
EP 16837058 A 20160810

Priority
• JP 2015161207 A 20150818
• JP 2016073565 W 20160810

Abstract (en)
[origin: EP3339761A1] The performing of wasteful defrosting, in which a defrosting operation is started when no frost has formed on the outdoor heat exchanger, is prevented. The refrigeration apparatus of the present invention is configured to start a defrosting operation for defrosting an outdoor heat exchanger (13) not only when a first necessary condition is met, which is that a state in which a continuous decrease of an indoor heat exchanger temperature is detected by an indoor heat exchanger temperature sensor (33) continues over a first set time, but also when a second necessary condition is met, which is that a state in which a continuous decrease of an outdoor heat exchanger temperature is detected by an outdoor heat exchanger temperature sensor (23) continues over a second set time.

IPC 8 full level
F24F 1/00 (2011.01); **F24F 1/0057** (2019.01); **F24F 1/0063** (2019.01); **F24F 1/0073** (2019.01); **F24F 11/42** (2018.01); **F24F 11/64** (2018.01); **F24F 11/65** (2018.01); **F25B 47/02** (2006.01); **F24F 110/10** (2018.01); **F24F 110/12** (2018.01)

CPC (source: EP US)
F24F 1/0057 (2019.01 - EP US); **F24F 1/0063** (2019.01 - EP US); **F24F 1/0073** (2019.01 - EP US); **F24F 11/42** (2017.12 - EP US); **F24F 11/64** (2017.12 - EP US); **F24F 11/65** (2017.12 - EP US); **F24F 11/871** (2017.12 - US); **F24F 11/89** (2017.12 - US); **F25B 47/025** (2013.01 - EP US); **F28F 27/00** (2013.01 - US); **F24F 2110/10** (2017.12 - EP US); **F24F 2110/12** (2017.12 - EP US); **F25B 2700/11** (2013.01 - EP US); **F25B 2700/2106** (2013.01 - EP US); **F25B 2700/21161** (2013.01 - EP US); **F25B 2700/21171** (2013.01 - EP US)

Citation (search report)
• [XA] JP S63123941 A 19880527 - HITACHI LTD
• [XA] JP S62131134 A 19870613 - MATSUSHITA ELECTRIC IND CO LTD
• [A] JP S57182041 A 19821109 - SHARP KK
• [A] JP S62129638 A 19870611 - MITSUBISHI ELECTRIC CORP
• See references of WO 2017030068A1

Cited by
EP3412992A4

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 3339761 A1 20180627; EP 3339761 A4 20180808; AU 2016309268 A1 20180419; BR 112018001930 A2 20180925; CN 107923646 A 20180417; CN 107923646 B 20190201; JP 2017040402 A 20170223; JP 6119811 B2 20170426; US 2018238578 A1 20180823; WO 2017030068 A1 20170223

DOCDB simple family (application)
EP 16837058 A 20160810; AU 2016309268 A 20160810; BR 112018001930 A 20160810; CN 201680047774 A 20160810; JP 2015161207 A 20150818; JP 2016073565 W 20160810; US 201615753310 A 20160810