

Title (en)
REFRIGERATING CYCLE APPARATUS

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
APPAREIL À CYCLE DE RÉFRIGÉRATION

Publication
EP 3396273 A4 20190123 (EN)

Application
EP 17770373 A 20170323

Priority
• JP 2016061136 A 20160325
• JP 2017011839 W 20170323

Abstract (en)
[origin: EP3396273A1] Provided is an air conditioner 1 equipped with: a first depressurization unit 51 by which the pressure of non-azeotropic refrigerant mixture flowing out from a condenser 4 is reduced to a gas-liquid two-phase state; a gas-liquid separator 11 by which the non-azeotropic refrigerant mixture depressurized to a gas-liquid two-phase state is separated into a gas phase and a liquid phase; a first pathway 121 by which the gas-phase refrigerant in the gas-liquid separator 11 is supplied to an evaporator 6; a second pathway 122 by which the liquid-phase refrigerant in the gas-liquid separator 11 bypasses the evaporator 6; an intercooler 13 in which the refrigerant flowing through the first pathway 121 is condensed through heat exchange with the refrigerant flowing through the second pathway 122; a second depressurization unit 52 which reduces the pressure of the refrigerant flowing through the first pathway 121; and a third depressurization unit 53 which reduces the pressure of the refrigerant flowing through the second pathway 122.

IPC 8 full level
F25B 1/00 (2006.01); **F25B 13/00** (2006.01); **F25B 43/00** (2006.01)

CPC (source: EP)
F25B 13/00 (2013.01); **F25B 41/39** (2021.01); **F25B 41/20** (2021.01); **F25B 2313/0272** (2013.01); **F25B 2400/121** (2013.01); **F25B 2400/13** (2013.01); **F25B 2400/16** (2013.01); **F25B 2400/23** (2013.01)

Citation (search report)
• [X1] WO 2009154149 A1 20091223 - MITSUBISHI ELECTRIC CORP [JP], et al
• [A] JP 2012236884 A 20121206 - FUJITSU GENERAL LTD
• [X1] WO 2015140870 A1 20150924 - MITSUBISHI ELECTRIC CORP [JP], et al
• [X1] WO 2015140879 A1 20150924 - MITSUBISHI ELECTRIC CORP [JP], et al
• See references of WO 2017164333A1

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 3396273 A1 20181031; **EP 3396273 A4 20190123**; AU 2017238687 A1 20180719; AU 2017238687 B2 20190718;
CN 108463676 A 20180828; CN 108463676 B 20200623; JP 2017172908 A 20170928; JP 6774769 B2 20201028; WO 2017164333 A1 20170928

DOCDB simple family (application)
EP 17770373 A 20170323; AU 2017238687 A 20170323; CN 201780006360 A 20170323; JP 2016061136 A 20160325;
JP 2017011839 W 20170323