

Title (en)
FREEZE CYCLING DEVICE

Title (de)
GEFRIERZYKLUSVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE DE CONGÉLATION

Publication
EP 3051236 A1 20160803 (EN)

Application
EP 14848981 A 20140919

Priority
• JP 2013200762 A 20130927
• JP 2014074874 W 20140919

Abstract (en)
A leakage detect section predicts a degree of opening of the expansion valve in a case where the refrigerant is not leaked from the refrigeration cycle based on a quantity of change in state of the refrigeration cycle. Then, the leakage detect section detects leakage of the refrigerant in the refrigeration cycle by comparing the predicted degree of opening with an actual degree of opening.

IPC 8 full level
F25B 49/02 (2006.01)

CPC (source: EP)
F25B 13/00 (2013.01); **F25B 49/005** (2013.01); **F25B 49/02** (2013.01); **F25B 2341/064** (2013.01); **F25B 2500/222** (2013.01); **F25B 2600/21** (2013.01); **F25B 2600/2513** (2013.01)

Cited by
US2021404718A1; US11674726B2; US11359846B2; US11609032B2; US11885516B2; US11940188B2; US11131471B1; US11713893B2; US11732916B2; US11754324B2; US12013139B2

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 3051236 A1 20160803; **EP 3051236 A4 20170607**; **EP 3051236 B1 20181017**; JP 6130921 B2 20170517; JP WO2015046066 A1 20170309; TR 201819850 T4 20190121; WO 2015046066 A1 20150402

DOCDB simple family (application)
EP 14848981 A 20140919; JP 2014074874 W 20140919; JP 2015539168 A 20140919; TR 201819850 T 20140919