

Title (en)
AIR CONDITIONING APPARATUS

Title (de)
KLIMAANLAGE

Title (fr)
APPAREIL DE CLIMATISATION

Publication
EP 2570740 B1 20190227 (EN)

Application
EP 10851347 A 20100512

Priority
JP 2010003207 W 20100512

Abstract (en)
[origin: US2013014525A1] A switching device or the like efficiently performs operations such as the cutting off of a refrigerant and is easy to maintain, design, and manufacture at low cost even if the switching device is included in, for example, an air-conditioning apparatus including a plurality of indoor units. A plurality of shut-off valves for individually stopping the flow of a refrigerant are provided in a plurality of pipes for making a refrigerant circulate between a heat source unit and a plurality of indoor units. The shut-off valves are integrated into pairs. A number of pairs of the shut-off valves corresponding to the number of indoor units are grouped together.

IPC 8 full level
F24F 1/00 (2019.01); **F24F 1/32** (2011.01); **F25B 13/00** (2006.01); **F25B 41/00** (2006.01)

CPC (source: EP US)
F24F 1/32 (2013.01 - EP US); **F25B 41/42** (2021.01 - EP US); **F25B 13/00** (2013.01 - EP US); **F25B 2313/006** (2013.01 - EP US); **F25B 2313/023** (2013.01 - EP US); **F25B 2500/221** (2013.01 - EP US); **F25B 2500/222** (2013.01 - EP US); **F25B 2600/2519** (2013.01 - EP US)

Cited by
WO2019115555A1; WO2023161249A1; BE1030289B1; BE1030293B1; EP3499101A1; EP3091313A4; WO2023161248A1; BE1030293A1

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 SE SI SK SM TR

DOCDB simple family (publication)
US 2013014525 A1 20130117; CN 102893095 A 20130123; CN 102893095 B 20160106; EP 2570740 A1 20130320; EP 2570740 A4 20171213; EP 2570740 B1 20190227; JP WO2011141959 A1 20130722; WO 2011141959 A1 20111117

DOCDB simple family (application)
US 201013637860 A 20100512; CN 201080066716 A 20100512; EP 10851347 A 20100512; JP 2010003207 W 20100512; JP 2012514605 A 20100512