

Title (en)
AIR CONDITIONER SYSTEM

Title (de)
KLIMAANLAGENSYSYSTEM

Title (fr)
SYSTÈME DE CLIMATISATION

Publication
EP 3734167 A4 20201230 (EN)

Application
EP 18893462 A 20181115

Priority
• CN 201711474368 A 20171229
• CN 2018115747 W 20181115

Abstract (en)
[origin: EP3734167A1] An air conditioner system, comprising a compressor (1), an indoor heat exchanger (2), a first throttle device (3), and an outdoor heat exchanger (4) connected in series in a main circuit. The main circuit is also provided with a heat exchanger (5) and a first gas-liquid separator (6). A bypass defrosting circuit (P) is disposed between the compressor (1) and the outdoor heat exchanger (4). One side of the heat exchanger (5) is connected to a first pipeline (M) between the first throttle device (3) and the indoor heat exchanger (2), and the other side of the heat exchanger (5) is connected to a second pipeline (N) between the first throttle device (3) and the outdoor heat exchanger (4). A refrigerant passing through the first pipeline (M) and a refrigerant passing through the second pipeline (N) can exchange heat in the heat exchanger (5). A bypass pipeline (L) is disposed between the first gas-liquid separator (6) and the compressor (1). The air conditioner system can achieve the purpose of defrosting without being turned off while increasing the degree of supercooling of the refrigerant in the first pipeline (M).

IPC 8 full level
F24F 1/00 (2019.01); **F24F 1/0059** (2019.01); **F24F 11/42** (2018.01); **F24F 11/67** (2018.01); **F24F 11/84** (2018.01); **F24F 13/30** (2006.01); **F25B 13/00** (2006.01); **F25B 40/00** (2006.01); **F25B 47/02** (2006.01)

CPC (source: CN EP)
F24F 1/0059 (2013.01 - CN); **F24F 1/14** (2013.01 - EP); **F24F 11/42** (2017.12 - CN EP); **F24F 11/67** (2017.12 - CN EP); **F24F 11/84** (2017.12 - CN EP); **F24F 13/30** (2013.01 - CN); **F25B 13/00** (2013.01 - EP); **F25B 40/00** (2013.01 - EP); **F25B 47/022** (2013.01 - EP); **F25B 2400/04** (2013.01 - EP); **F25B 2400/13** (2013.01 - EP); **F25B 2400/23** (2013.01 - EP); **F25B 2600/2501** (2013.01 - EP)

Citation (search report)
• [X] EP 2378215 A1 20111019 - MITSUBISHI ELECTRIC CORP [JP]
• [A] JP 2016106211 A 20160616 - MITSUBISHI ELECTRIC CORP
• [A] WO 2016189739 A1 20161201 - MITSUBISHI ELECTRIC CORP [JP]
• See references of WO 2019128516A1

Cited by
CN115200179A

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 3734167 A1 20201104; EP 3734167 A4 20201230; EP 3734167 B1 20230125; CN 108332285 A 20180727; CN 108332285 B 20191206; DK 3734167 T3 20230220; ES 2939186 T3 20230419; FI 3734167 T3 20230317; JP 2021509945 A 20210408; JP 7175985 B2 20221121; PL 3734167 T3 20230424; WO 2019128516 A1 20190704

DOCDB simple family (application)
EP 18893462 A 20181115; CN 201711474368 A 20171229; CN 2018115747 W 20181115; DK 18893462 T 20181115; ES 18893462 T 20181115; FI 18893462 T 20181115; JP 2020535568 A 20181115; PL 18893462 T 20181115