

Title (en)  
AIR CONDITIONER

Title (de)  
KLIMAANLAGE

Title (fr)  
CONDITIONNEUR D'AIR

Publication  
**EP 3611439 A4 20201216 (EN)**

Application  
**EP 17905581 A 20171030**

Priority  
• JP 2017078344 A 20170411  
• JP 2017039185 W 20171030

Abstract (en)  
[origin: EP3611439A1] First connecting valves (82, 84, 86) are provided on refrigerant pipes connecting a refrigerant switching part (20) and indoor heat exchangers (51, 52) or a hot-water supply heat exchanger (61). Second connecting valves (81, 83, 85) are provided on refrigerant pipes connecting an outdoor heat exchanger (30) and the indoor heat exchangers (51, 52) or the hot-water supply heat exchanger (61). Refrigerant on-off valves (71, 72, 73) are disposed on refrigerant pipes connecting the first connecting valves (82, 84, 86) and the indoor heat exchangers (51, 52) or the hot-water supply heat exchanger (61).

IPC 8 full level  
**F24F 11/30** (2018.01); **F24F 3/06** (2006.01); **F24F 5/00** (2006.01); **F24F 11/84** (2018.01); **F24F 11/86** (2018.01); **F24F 11/87** (2018.01); **F24F 11/875** (2018.01); **F24H 4/04** (2006.01); **F25B 1/00** (2006.01); **F25B 6/02** (2006.01); **F25B 13/00** (2006.01); **F25B 29/00** (2006.01); **F24F 110/10** (2018.01); **F24F 140/20** (2018.01)

CPC (source: EP US)  
**F24F 3/065** (2013.01 - EP US); **F24F 5/0096** (2013.01 - EP); **F24F 11/84** (2017.12 - EP); **F24F 11/86** (2017.12 - EP); **F24F 11/87** (2017.12 - EP); **F24F 11/875** (2017.12 - EP); **F24H 4/04** (2013.01 - EP); **F25B 13/00** (2013.01 - EP); **F25B 41/20** (2021.01 - EP US); **F25B 41/24** (2021.01 - EP US); **F25B 49/02** (2013.01 - EP); **F24F 2110/10** (2017.12 - EP); **F24F 2140/20** (2017.12 - EP); **F24F 2221/183** (2013.01 - EP); **F24F 2221/34** (2013.01 - EP); **F25B 2313/003** (2013.01 - EP); **F25B 2313/0233** (2013.01 - EP); **F25B 2313/0315** (2013.01 - EP); **F25B 2700/2106** (2013.01 - EP); **F25B 2700/21152** (2013.01 - EP)

Citation (search report)  
• [A] EP 2781848 A1 20140924 - MITSUBISHI ELECTRIC CORP [JP]  
• [A] EP 2388530 A2 20111123 - LG ELECTRONICS INC [KR]  
• [A] JP 2014081196 A 20140508 - MITSUBISHI ELECTRIC CORP  
• [A] CN 202177256 U 20120328 - TCL AIR CONDITIONER ZHONGSHAN  
• [A] JP H01234763 A 19890920 - DAIKIN IND LTD  
• [A] EP 2017540 A1 20090121 - SANYO ELECTRIC CO [JP]  
• [AD] JP 2013130344 A 20130704 - HITACHI APPLIANCES INC  
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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

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**EP 3611439 A1 20200219; EP 3611439 A4 20201216; EP 3611439 B1 20230802**; CN 110050162 A 20190723; CN 110050162 B 20210302; JP 6667719 B2 20200318; JP WO2018189942 A1 20191107; MY 191401 A 20220624; WO 2018189942 A1 20181018

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**EP 17905581 A 20171030**; CN 201780075496 A 20171030; JP 2017039185 W 20171030; JP 2019512345 A 20171030; MY PI2019004190 A 20171030