

Title (en)  
Outdoor Unit for Multi-Air Conditioner

Title (de)  
Außeneinheit für eine Mehrzonenklimaanlage

Title (fr)  
Unité extérieure pour climatiseur multiple

Publication  
**EP 1978315 A3 20141231 (EN)**

Application  
**EP 07120875 A 20071116**

Priority  
KR 20070034425 A 20070406

Abstract (en)  
[origin: EP1978315A2] An outdoor unit (10) applicable to not only a multi-air conditioner to perform heating and cooling operations simultaneously, but also a multi-air conditioner to perform a heating operation and a cooling operation separately. The outdoor unit (10) includes a compressor (11), an outdoor heat exchanger (12), first to third connecting valves (21-23) connected to pipes of a plurality of indoor units, respectively, a first 4-way valve (15) connected to a discharge side of the compressor for conversion of heating and cooling operations, a high-pressure gas pipe (26) to connect the first 4-way valve with the first connecting valve (21), a high-pressure liquid pipe (28) to connect the second connecting valve (22) with the outdoor heat exchanger (12), a first connecting pipe (24) to connect the outdoor heat exchanger (12) with the first 4-way valve (15), a second connecting pipe (25) to connect the first 4-way valve to a suction side of the compressor, and a low-pressure gas pipe (27) to guide a low-pressure gas refrigerant returned to the third connecting valve to the suction side of the compressor, and further includes a second 4-way valve (16) to convert a flow path so as to communicate the high-pressure gas pipe (26) with the third connecting valve (23) or to communicate the low-pressure gas pipe (27) with the third connecting valve (23).

IPC 8 full level  
**F25B 13/00** (2006.01); **F25B 29/00** (2006.01)

CPC (source: EP KR)  
**F25B 13/00** (2013.01 - EP KR); **F25B 2313/007** (2013.01 - EP KR); **F25B 2313/023** (2013.01 - KR); **F25B 2313/0231** (2013.01 - EP KR); **F25B 2313/02742** (2013.01 - EP KR); **F25B 2400/04** (2013.01 - EP KR)

Citation (search report)  
• [A] EP 1643195 A2 20060405 - SAMSUNG ELECTRONICS CO LTD [KR]  
• [A] JP 2004347164 A 20041209 - SAMSUNG ELECTRONICS CO LTD

Cited by  
EP3018432A1; EP2236957A3; JP2016061489A; US10253992B2

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Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
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**EP 07120875 A 20071116**; CN 200710186493 A 20071122; KR 20070034425 A 20070406