

Title (en)
INJECTION PIPE

Title (de)
INJEKTIONSROHR

Title (fr)
TUYAU D'INJECTION

Publication
EP 2330300 A4 20171122 (EN)

Application
EP 10741210 A 20100208

Priority
• JP 2010051828 W 20100208
• JP 2009030918 A 20090213

Abstract (en)
[origin: EP2330300A1] An injection pipe (17) that supplies a compressor (3) with a gas refrigerant subjected to gas/liquid separation by a receiver, which separates the reduced-pressure refrigerant into gas and liquid, or a gas refrigerant gasified by a heat exchanger, wherein a muffler (19) having an inside diameter larger than the inside diameter of the injection pipe (17) is provided at an end located at the compressor (3) side. This can reduce pulsation caused by a refrigerant flowing back from the compressor, which can reduce vibration and noise due to the pulsation, thereby preventing the pipe from being damaged by the vibration.

IPC 8 full level
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Citation (search report)
• [X] JP H06241166 A 19940830 - MITSUBISHI HEAVY IND LTD
• [I] JP S61128075 A 19860616 - TOSHIBA CORP
• [Y] JP H01239351 A 19890925 - MATSUSHITA REFRIGERATION
• [Y] JP H0712063 A 19950117 - MITSUBISHI ELECTRIC CORP
• [Y] JP H10325622 A 19981208 - MITSUBISHI ELECTRIC CORP
• [Y] JP S63246487 A 19881013 - MITSUBISHI ELECTRIC CORP
• [A] EP 1568954 A2 20050831 - LG ELECTRONICS INC [KR]
• See references of WO 2010092933A1

Cited by
CN110762000A; EP2988073A1; CN106662371A; EP4177470A4; US10989196B2; US10612819B2; US10876532B2; US9464832B2

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