Title (en)

HEAT PUMP DEVICE, COMPRESSOR WITH INJECTION MECHANISM, AND METHOD OF MANUFACTURING SCROLL COMPRESSOR WITH INJECTION MECHANISM

Title (de)

WÄRMEPUMPE, VERDICHTER MIT INJEKTIONSMECHANISMUS UND VERFAHREN ZUR HERSTELLUNG EINES SPIRALVERDICHTERS MIT INJEKTIONSMECHANISMUS

Title (fr)

DISPOSITIF DE POMPE À CHALEUR, COMPRESSEUR AVEC MÉCANISME D'INJECTION ET PROCÉDÉ DE FABRICATION D'UN COMPRESSEUR À SPIRALE AVEC MÉCANISME D'INJECTION

Publication

EP 2461122 A1 20120606 (EN)

Application

EP 09847791 A 20090728

Priority

JP 2009063412 W 20090728

Abstract (en)

To prevent not fully compressed refrigerant from flowing in an injection circuit. A compressor comprises compressing portions 1 and 2 that form a compression chamber 20 and compress a sucked refrigerant sucked in by the compression chamber 20, the sucked refrigerant being compressed from a suction pressure to a discharge pressure; and a refrigerant injecting portion that injects an injection refrigerant into an intermediate pressure portion where the sucked refrigerant has an intermediate pressure, which is higher than the suction pressure and lower than the discharge pressure, in the compression chamber 20. The refrigerant injecting portion comprises a refrigerant inlet chamber 1e, which the injection refrigerant enters from an injection circuit via an injection pipe 41; and an on-off valve chamber 1f that is connected to the refrigerant inlet chamber 1e and the intermediate pressure portion of the compression chamber 20. The on-off valve chamber 1f is formed with a connection port to the refrigerant inlet chamber 1e and a connection pipe to the intermediate pressure portion on the same surface in the chamber. The on-off valve chamber 1f is provided with an on-off valve 30 that opens and closes the connection port to the refrigerant inlet chamber 1e according to a pressure difference between a refrigerant on the refrigerant inlet chamber 1e side and a refrigerant on the intermediate pressure portion side.

IPC 8 full level

F25B 1/00 (2006.01); **F25B 1/04** (2006.01)

CPC (source: EP KR)

F04C 18/0215 (2013.01 - EP KR); **F04C 23/008** (2013.01 - KR); **F04C 29/0007** (2013.01 - EP KR); **F04C 29/124** (2013.01 - EP KR); **F25B 1/04** (2013.01 - EP KR); **F25B 1/10** (2013.01 - EP KR); **F25B 41/39** (2021.01 - EP KR); F04C 23/008 (2013.01 - EP); F25B 2400/13 (2013.01 - EP KR); F25B 2600/2509 (2013.01 - EP KR)

Cited by

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Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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