

Title (en)

Ultra low temperature heat pump system with secondary refrigerant injection mechanism

Title (de)

Ultratieftemperatur-Wärmepumpensystem mit sekundärem Kühlmittelinjektionsmechanismus

Title (fr)

Système de pompe à chaleur à ultra basse température avec mécanisme d'injection de réfrigérant secondaire

Publication

**EP 2426437 A3 20150311 (EN)**

Application

**EP 11005781 A 20110714**

Priority

CN 201010270325 A 20100902

Abstract (en)

[origin: EP2426437A2] An ultra low temperature heat pump system with secondary refrigerant injection mechanism is disclosed which comprising a compressor, a condenser, a reservoir tank, a thermal expansion valve, a vaporizer and a separator, sequentially connected to form a circulation loop, an air refill device I provided between the compressor and the reservoir tank, which is constructed of an injection valve, an economizer, a first solenoid valve and a second solenoid valve. The two solenoid valves are arranged in parallel with the first solenoid valve connected directly to the compressor and the second solenoid valve connects sequentially to the injection valve and the economizer. The economizer is then connected to the compressor.

IPC 8 full level

**F25B 13/00** (2006.01)

CPC (source: EP)

**F25B 13/00** (2013.01); **F25B 1/10** (2013.01); **F25B 2400/13** (2013.01)

Citation (search report)

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Designated contracting state (EPC)

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