

Title (en)

Device combining internal heat exchanger and accumulator for an air conditioning circuit

Title (de)

Vorrichtung, die einen inneren Wärmetauscher und Akkumulator für einen Kreislauf einer Klimaanlage kombiniert

Title (fr)

Dispositif combiné d'échangeur de chaleur interne et d'accumulateur pour un circuit de climatisation

Publication

EP 1640676 A1 20060329 (FR)

Application

EP 05017463 A 20050811

Priority

FR 0410133 A 20040924

Abstract (en)

The device has an outer cylindrical wall (20) with channels (22) to vertically circulate refrigerant upwards at high pressure and temperature. An annular space (48) is defined between the wall (20) and a cylindrical wall of a refrigerant container (32) to vertically circulate the refrigerant downwards at low pressure and temperature. Heat is exchanged between the refrigerants. Connections for the refrigerant, and for connection to an evaporator and a compressor, are grouped respectively in an upper flange (26) and a lower flange (24). An independent claim is also included for a gas cooler for an air-conditioning circuit circulated by a refrigerant in gaseous phase.

IPC 8 full level

F25B 40/00 (2006.01)

CPC (source: EP)

F25B 40/00 (2013.01); **F25B 43/006** (2013.01); **F28D 7/026** (2013.01); **F28D 7/103** (2013.01); **F28F 1/105** (2013.01); **F28F 7/02** (2013.01); **F25B 9/008** (2013.01); **F25B 2309/061** (2013.01); **F25B 2339/044** (2013.01); **F25B 2400/051** (2013.01); **F25B 2500/18** (2013.01)

Citation (applicant)

- US 6523365 B2 20030225 - ZHANG CHAO A [US], et al
- US 6539746 B1 20030401 - HAUSSMANN ROLAND [DE]
- US 6189334 B1 20010220 - DIENHART BERND [DE], et al
- US 6751983 B1 20040622 - DIENHART BERND [DE], et al

Citation (search report)

- [A] US 2004031596 A1 20040219 - NISHIDA SHIN [JP], et al
- [DA] US 6751983 B1 20040622 - DIENHART BERND [DE], et al
- [A] US 6298687 B1 20011009 - DIENHART BERND [DE], et al
- [DA] US 6539746 B1 20030401 - HAUSSMANN ROLAND [DE]
- [A] EP 1306629 A1 20030502 - MATSUSHITA ELECTRIC IND CO LTD [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12 5 December 2003 (2003-12-05)

Cited by

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Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 1640676 A1 20060329; **EP 1640676 B1 20071024**; AT E376656 T1 20071115; DE 602005002995 D1 20071206; DE 602005002995 T2 20080821; ES 2296024 T3 20080416; FR 2875894 A1 20060331; FR 2875894 B1 20061215

DOCDB simple family (application)

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