

Title (en)

Improved expansion valve for air conditioning circuit

Title (de)

Verbesserte Entspannungsvorrichtung für einen Klimakreislauf

Title (fr)

Dispositif de détente améliorée pour circuit de climatisation

Publication

EP 1715264 A1 20061025 (FR)

Application

EP 05008382 A 20050418

Priority

- EP 05008382 A 20050418
- FR 0403766 A 20040409

Abstract (en)

The device has a body, traversed by a coolant, comprising an inlet compartment (1210), in which the coolant enters, and an outlet compartment (1230), through which the coolant leaves the body. A set of expansion units comprises variable and fixed expansion units. The variable unit has an orifice (34) and a needle (134) varying the passage section of the orifice (34) according to the pressure of the coolant. The fixed unit has an orifice (35) with a fixed passage section. The expansion units allow the coolant to pass from the inlet compartment to the outlet compartment through the orifices.

IPC 8 full level

F25B 41/06 (2006.01); **F25B 9/00** (2006.01)

CPC (source: EP US)

F25B 41/33 (2021.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2341/063** (2013.01 - EP US)

Citation (search report)

- [X] US 6430950 B1 20020813 - DIENHART BERND [DE], et al
- [XY] WO 0106183 A1 20010125 - BOSCH AUTOMOTIVE SYSTEMS CORP [JP], et al
- [X] FR 2841829 A1 20040109 - VALEO CLIMATISATION [FR]
- [X] US 6230506 B1 20010515 - NISHIDA SHIN [JP], et al
- [X] WO 0127543 A1 20010419 - ZEXEL VALEO CLIMATE CONTR CORP [JP], et al
- [A] DE 10219667 A1 20031113 - EGELHOF FA OTTO [DE]
- [Y] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 14 22 December 1999 (1999-12-22)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR LV MK YU

DOCDB simple family (publication)

FR 2868830 A1 20051014; FR 2868830 B1 20121130; AT E470115 T1 20100615; CN 100541061 C 20090916; CN 1743772 A 20060308; DE 602005021618 D1 20100715; EP 1715264 A1 20061025; EP 1715264 B1 20100602; ES 2345497 T3 20100924; US 2005223740 A1 20051013; US 7243501 B2 20070717

DOCDB simple family (application)

FR 0403766 A 20040409; AT 05008382 T 20050418; CN 200510064867 A 20050408; DE 602005021618 T 20050418; EP 05008382 A 20050418; ES 05008382 T 20050418; US 10290105 A 20050408