

Title (en)

Header box for heat exchanger

Title (de)

Sammelkasten für Wärmetauscher

Title (fr)

Boîte collectrice pour échangeur de chaleur, notamment pour évaporateur de climatisation, échangeur comportant une telle boîte

Publication

EP 1780490 A1 20070502 (FR)

Application

EP 06123077 A 20061027

Priority

FR 0511132 A 20051028

Abstract (en)

The box has a cover (52) and a collector plate (26) equipped with reception openings (28) for inserting heat exchanging tubes. A sleeve (40) is disposed in fluid inlet and outlet openings (34, 36) and comprises a collar (42). The collar is sandwiched between the collector plate and the cover and cooperates with the collector plate for maintaining the sleeve. Fluid inlet and outlet pipes are disposed in the sleeve.

IPC 8 full level

F28F 9/04 (2006.01)

CPC (source: EP)

F28D 1/05391 (2013.01); **F28F 9/0214** (2013.01); **F28F 9/0224** (2013.01); **F28F 9/0246** (2013.01); **F28F 9/0278** (2013.01); **F28D 2021/0085** (2013.01)

Citation (applicant)

- US 2004211551 A1 20041028 - SHINMURA ETSUO [JP], et al
- WO 02066918 A1 20020829 - SHOWA DENKO KK [JP], et al
- WO 0188445 A1 20011122 - ZEXEL VALEO CLIMATE CONTR CORP [JP], et al
- WO 0197807 A1 20011227 - ASTRAZENECA AB [SE], et al

Citation (search report)

- [XY] WO 0192807 A1 20011206 - VALEO THERMIQUE MOTEUR SA [FR], et al
- [Y] FR 2189142 A2 19740125 - CHAUSSON USINES SA [FR]
- [Y] US 2003155109 A1 20030821 - KAWAKUBO MASAAKI [JP], et al
- [Y] FR 2844346 A1 20040312 - VALEO CLIMATISATION [FR]
- [A] EP 1182414 A2 20020227 - MODINE MFG CO [US]

Cited by

EP3587990A1; EP2801766A1; US2022381523A1; DE102021208717A1; WO2019243416A1

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 LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1780490 A1 20070502; **EP 1780490 B1 20090311**; AT E425428 T1 20090315; DE 602006005575 D1 20090423; EP 2009383 A1 20081231; ES 2322190 T3 20090617; FR 2892803 A1 20070504; FR 2892803 B1 20080404

DOCDB simple family (application)

EP 06123077 A 20061027; AT 06123077 T 20061027; DE 602006005575 T 20061027; EP 08157536 A 20061027; ES 06123077 T 20061027; FR 0511132 A 20051028