

Title (en)  
Heat exchanger

Title (de)  
Wärmetauscher

Title (fr)  
Echangeur de chaleur

Publication  
**EP 1310748 B1 20090826 (DE)**

Application  
**EP 02023317 A 20021018**

Priority  
• DE 10154891 A 20011108  
• DE 10229831 A 20020703

Abstract (en)  
[origin: EP1310748A2] A collector (3) consisting of a tube (5) to which a tube piece (6) is brazed at the lower end (5a), is connected to a collecting tube (2) of the heat exchanger, by making collars (8,9) formed in the lower area of the collecting tube engaged with bores (10,11) formed in the tube piece. An extension (7a) of a cover (7) which seals an upper end (5b) of the collector is used to seal the upper end of the header. <??>Independent claims are also included for the following: <??>(1) manufacturing method of heat exchanger; and <??>(2) refrigerant condenser in vehicle air conditioning system.

IPC 8 full level  
**F25B 39/04** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP US)  
**F25B 39/04** (2013.01 - EP US); **F28F 9/0214** (2013.01 - EP US); **F25B 2339/044** (2013.01 - EP US); **F25B 2339/0442** (2013.01 - EP US); **F25B 2339/0446** (2013.01 - EP US); **F28F 2220/00** (2013.01 - EP US)

Cited by  
KR101318629B1; DE102008007597A1; US7832230B2; US7334429B2; US11536500B2; EP2108905A1; EP3444544A1; CN111527355A; WO2005050119A3; WO2019034647A1; WO2010097392A1; WO2005052470A1; EP2287552B1; EP2491328B1

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DOCDB simple family (publication)  
**EP 1310748 A2 20030514; EP 1310748 A3 20040102; EP 1310748 B1 20090826**; AT E441073 T1 20090915; DE 50213792 D1 20091008; US 2003085026 A1 20030508; US 6851468 B2 20050208

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**EP 02023317 A 20021018**; AT 02023317 T 20021018; DE 50213792 T 20021018; US 28926402 A 20021107