

Title (en)

COOLANT CONDENSER ASSEMBLY

Title (de)

KÄLTEMITTELKONDENSATORBAUGRUPPE

Title (fr)

ENSEMble CONDENSEUR DE FLUIDE FRIGORIGÈNE

Publication

EP 2612095 A1 20130710 (DE)

Application

EP 11741175 A 20110728

Priority

- DE 102010040025 A 20100831
- EP 2011063008 W 20110728

Abstract (en)

[origin: WO2012028398A1] In a coolant condenser assembly for a motor vehicle air conditioning system, comprising cooling pipes for conducting a coolant through, two collecting pipes for fluidically connecting the cooling pipes, a collecting container (6) with an upper cover wall (21) and a lower bottom wall (22) and a side wall (20) as well as with an inlet opening (18) for conducting the coolant into the collecting container (6) and an outlet opening (19) for conducting the coolant out of the collecting container (8), with the result that through the inlet and outlet openings (18, 19) the collecting container (6) is fluidically connected to the collecting pipe and/or the cooling pipes, the collecting container (8) comprises an outlet chamber (24) and a riser pipe (25), and the outlet opening (19) opens into the outlet chamber (24), and the outlet chamber (24) is connected to the riser pipe (25) and a storage chamber (28) for the coolant is formed within the collecting container (6) and outside the outlet chamber (24) and outside the riser pipe (25), the collecting container (6) preferably has an inlet chamber (26) and a downpipe (27), and the inlet opening (18) opens into the inlet chamber (26) and the inlet chamber (26) is connected to the downpipe (27) and the storage chamber (28) is formed outside the inlet chamber (26) and outside the downpipe (27), the cooling pipes have a superheating region for cooling the vaporous coolant, a condensation region for condensing the coolant and a supercooling region for cooling the liquid coolant, wherein the supercooling region is formed above the superheating region and above the condensation region, the intention is that little coolant will be present in flow spaces in the collecting container (6). This object is achieved in that the height of the storage chamber (28) is greater than the distance between the lower floor wall (22) and the inlet and/or outlet openings (18, 19).

IPC 8 full level

F25B 40/00 (2006.01); **F25B 39/04** (2006.01); **F28B 9/08** (2006.01); **F28D 1/053** (2006.01); **F25B 40/02** (2006.01); **F25B 40/04** (2006.01); **F28D 21/00** (2006.01)

CPC (source: EP US)

F25B 39/04 (2013.01 - EP US); **F25B 40/00** (2013.01 - US); **F28B 9/08** (2013.01 - US); **F28D 1/053** (2013.01 - EP US);
F25B 40/02 (2013.01 - EP US); **F25B 40/04** (2013.01 - EP US); **F25B 2339/0441** (2013.01 - EP US); **F25B 2500/01** (2013.01 - EP US);
F28D 2021/0084 (2013.01 - EP US)

Citation (search report)

See references of WO 2012028398A1

Cited by

US11137208B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

DE 102010040025 A1 20120301; CN 203421990 U 20140205; EP 2612095 A1 20130710; EP 2612095 B1 20170426;
JP 2013536780 A 20130926; JP 5845524 B2 20160120; US 2013219953 A1 20130829; US 9546805 B2 20170117;
WO 2012028398 A1 20120308

DOCDB simple family (application)

DE 102010040025 A 20100831; CN 201190000777 U 20110728; EP 11741175 A 20110728; EP 2011063008 W 20110728;
JP 2013526384 A 20110728; US 201113819739 A 20110728