

Title (en)  
COOLANT CONDENSER ASSEMBLY

Title (de)  
KÄLTEMITTELKONDENSATORBAUGRUPPE

Title (fr)  
MODULE DE CONDENSEUR À RÉFRIGÉRANT

Publication  
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Application  
**EP 11749398 A 20110819**

Priority  
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Abstract (en)  
[origin: WO2012022806A1] The invention relates to a coolant condenser assembly for an air conditioning system for a motor vehicle, comprising an inlet opening (9) for the introduction of a coolant, an outlet opening (10) for the discharge of a coolant, and cooling pipes (2) for the passage of a coolant, two collective pipes for fluidic connection of the cooling pipes (2), and a collecting vessel having at least one overflow opening by means of which the collecting vessel is fluidically connected to the cooling pipes (2) and/or the collective pipe, the collecting vessel being disposed on a first longitudinal side of the coolant condenser assembly, and the cooling pipes (2) having a superheating region (11) for cooling the vaporous coolant, a condensation region (12) for condensing the coolant, and a supercooling region (13) for cooling the liquid coolant. The problem addressed by the invention is that the coolant in the supercooling region (13) of the coolant condenser assembly should be cooled intensely without the condensation pressure increasing substantially in the coolant condenser assembly. This problem is solved in that, in the supercooling region (13), at least two cooling pipes (2), as the first supercooling parallel section (14), are acted upon in parallel by the coolant in a fluid-conducting manner, the coolant which flows out of the first supercooling parallel section (14) flows into a first supercooling intermediate flow duct (15), and the first supercooling intermediate flow duct (15) opens into at least two cooling pipes (2) as the second supercooling parallel section (16), and the second supercooling parallel section (16) opens into a second supercooling intermediate flow duct (17) and the second supercooling intermediate flow duct (17) opens into at least two cooling pipes (2) as the third supercooling parallel section (18), such that the outlet opening (10) is disposed on a second longitudinal side of the coolant condenser assembly.

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