Title (en)

COOLANT PUMP, ESPECIALLY ELECTRIC CONVECTION-COOLED COOLANT PUMP WITH INTEGRATED DIRECTIONAL CONTROL VALVE, AND CORRESPONDING METHOD

Title (de)

KÜHLMITTELPUMPE, INSBESONDERE STRÖMUNGSGEKÜHLTE ELEKTRISCHE KÜHLMITTELPUMPE MIT INTEGRIERTEM WEGEVENTIL, SOWIE VERFAHREN HIERFÜR

Title (fr)

POMPE DE FLUIDE REFRIGERANT, EN PARTICULIER, POMPE ELECTRIQUE A REFROIDISSEMENT HYDRAULIQUE, A DISTRIBUTEUR INTEGRE, ET PROCEDE CORRESPONDANT

Publication

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Application

EP 04718939 A 20040310

Priority

- EP 2004002455 W 20040310
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Abstract (en)

[origin: WO2004088143A1] The invention relates to a coolant pump for a coolant circuit of the internal combustion engine of a motor vehicle, which comprises at least one cooling circuit and one bypass circuit. The coolant pump comprises a coolant pump housing (14) which is provided with an intake pipe (22), a bypass pipe (14) and a pressure pipe (34). A coolant pump electric motor (26) is arranged in the coolant pump housing (14) and drives a pump impeller (32) via a pump shaft (30). Its motor housing (28) is situated in the coolant flow. A directional control valve (40) is integrated into the coolant pump housing (14). The invention is characterized in that the intake pipe (22) is arranged in the area of the end of the pump motor facing away from the pump impeller (32). The bypass pipe is arranged in an area downstream of the intake pipe (22) and the pressure pipe (34) is arranged in an area downstream of the bypass pipe (24). Only the coolant that can be taken in by the cooler via the intake pipe is guided past the pump motor in a peripheral flow (50), especially through a flow channel (56) limited by the outer wall (52) of the pump motor housing (28) and the facing inner wall (54) of the pump housing and/or the facing inner wall (60) of the directional control valve (40). The invention also relates to a corresponding method.

IPC 8 full level

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