

Title (en)  
COOLING CIRCUIT

Title (de)  
KÜHLKREISLAUF

Title (fr)  
CIRCUIT DE REFROIDISSEMENT

Publication  
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Application  
**EP 01913686 A 20010221**

Priority  
• DE 0100637 W 20010221  
• DE 10016405 A 20000401

Abstract (en)  
[origin: WO0175281A1] The invention relates to a cooling circuit (10), comprising at least one heat source (12), a radiator (14) and a by-pass line (22), which connects a coolant inlet (18) with a coolant return (20), with a control valve (26) arranged on the junction (24) thereof. The throttling body (58) of said valve may be controlled electrically, dependent upon operating parameters and environmental parameters, by means of at least one control unit (40, 42) and divides the coolant flow between the coolant inlet (18) and the bypass line (22). According to the invention, the control unit (40, 42) determines a set value (50), for the position of the throttling body (58), using a characteristic curve for the control valve (26), which sets the ratio of the radiator volume flow to the total coolant flow at the control valve (26) and which is equal to the ratio of the difference of a temperature at the outlet (36) of the bypass line (22) minus a set temperature at the input of the heat source (12) and the difference of the temperature at the outlet (36) of the bypass line (22) minus a temperature at the outlet of the radiator (14), whereby the ratio of the radiator volume flow to the total coolant flow is set to zero for a negative value and limited to one for a value greater than one.

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