Title (en)
Hot water system

Title (de)
Heißwassersystem

Title (fr)
Système de fourniture d'eau chaude

Publication
EP 1967801 B1 20170726 (EN)

Application
EP 07254439 A 20071113

Priority
JP 2007060238 A 20070309

Abstract (en)
[origin: EP1967801A2] A hot water system includes: a compressor (1); a four-way valve (2) for switching the direction of the refrigerating cycle during defrosting operation; a water heat exchanger (3) for transferring heat between water and the refrigerant; an electronic expansion valve (4) for controlling the flow rate of the refrigerant to reduce the pressure; and an air heat exchanger (5) for transferring heat between air and the refrigerant, which are connected in that order by a pipeline (7) to form a refrigerating cycle to heat the water. The hot water system further includes; a bypath (8) for redirecting the refrigerant from a portion of the pipeline (7) in upstream of the electronic expansion valve (4) to the inlet of the compressor (1) during defrosting operation; and a solenoid valve (9) for switching installed in the bypath (8). When the solenoid valve (9) is opened to redirect part of the refrigerant to pass through the water heat exchanger (3) acting as an evaporator to the bypath (8) during defrosting operation, the amount of the refrigerant to pass through the bypath (8) is controlled by changing the degree of opening of the electronic expansion Valve (4).

IPC 8 full level
F25B 47/02 (2006.01)

CPC (source: EP)
F24D 17/02 (2013.01); **F25B 47/025** (2013.01); F25B 2339/047 (2013.01); F25B 2600/2513 (2013.01)

Cited by
CN108007016A; CN117199631A; EP4257893A4; CN110895061A; EP3249321A4; EP3617616A4; US9709308B2; US9557085B2; EP2733444A4

Designated contracting state (EPC)
DE FR GB SE

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