

Title (en)
Hot water system

Title (de)
Heißwassersystem

Title (fr)
Système de fourniture d'eau chaude

Publication
EP 1972871 A3 20150902 (EN)

Application
EP 07254438 A 20071113

Priority
JP 2007070995 A 20070319

Abstract (en)
[origin: EP1972871A2] A hot water system includes: a compressor (1) with variable operation capacity; a four-way valve (2) for switching the direction of the refrigerating cycle; a plate heat exchanger (10) for exchanging heat between water and a refrigerant; an electronic expansion valve (6) for controlling the flow rate of the refrigerant to reduce the pressure; and a heat exchanger (9) for exchanging heat between air and the refrigerant, which are connected in that order by a pipeline (3) to form a refrigerating cycle for circulating the refrigerant, thereby heating water. The hot water system further includes; pressure detection means (Pd) disposed between the outlet of the compressor (1) and the two-way valve (2), for detecting the pressure of the refrigerant discharged from the compressor (1), wherein the speed of operation of the compressor (1) is controlled according to the difference between the condensing temperature calculated from the pressure detected by the pressure detection means (Pd) and a target condensing temperature.

IPC 8 full level
F25B 49/02 (2006.01); **F25B 13/00** (2006.01)

CPC (source: EP US)
F24D 19/1054 (2013.01 - EP US); **F24H 15/227** (2022.01 - EP US); **F24H 15/242** (2022.01 - EP US); **F24H 15/38** (2022.01 - EP US); **F24H 15/385** (2022.01 - EP US); **F25B 41/39** (2021.01 - EP); **F25B 49/027** (2013.01 - EP); **F25B 13/00** (2013.01 - EP); **F25B 2313/02741** (2013.01 - EP); **F25B 2339/047** (2013.01 - EP); **F25B 2500/19** (2013.01 - EP); **F25B 2600/025** (2013.01 - EP); **F25B 2600/19** (2013.01 - EP); **F25B 2600/21** (2013.01 - EP); **F25B 2600/2513** (2013.01 - EP); **F25B 2700/1931** (2013.01 - EP); **F25B 2700/21152** (2013.01 - EP); **F25B 2700/21163** (2013.01 - EP)

Citation (search report)
• [YA] GB 2414289 A 20051123 - ASKER BARUM KULDETEKNIKK A S [NO]
• [YA] EP 0750166 A2 19961227 - MITSUBISHI ELECTRIC CORP [JP]
• [A] US 2006107689 A1 20060525 - NUNGESESSER ROY J [US], et al

Cited by
US2013180274A1; CN107606834A; EP2653805A4; EP3236174A4; CN107051963A; CN103808012A; EP2813784A4; EP2508820A1; CN102734869A; GB2485623B; EP2306124A1; CN102032704A; AU2010224438B2; EP2639516A3; CN106766365A; US8984901B2; US9625187B2; US8978402B2; WO2018176283A1; EP2459945B1; US9328931B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
EP 1972871 A2 20080924; EP 1972871 A3 20150902; EP 1972871 B1 20160928; JP 2008232508 A 20081002

DOCDB simple family (application)
EP 07254438 A 20071113; JP 2007070995 A 20070319