

Title (en)
Heat pump water heater

Title (de)
Wärmepumpenwassererhitzer

Title (fr)
Chauffe-eau à pompe de chaleur

Publication
EP 2733437 A1 20140521 (EN)

Application
EP 13193291 A 20131118

Priority
JP 2012253968 A 20121120

Abstract (en)
A heat pump water heater comprising a refrigerant circuit 2, a heat pump unit 1 and a hot water tank 41, wherein the heat pump unit 1 is disposed above the hot water tank 41 unit, and heat resistance R1 between the hot water tank 41 and the heat pump unit 1 is greater than heat resistance R2 between the hot water tank 41 and a side of the hot water tank 41 unit. It is possible to realize a water heater in which a heat radiation amount from an upper portion of the hot water tank 41 is reduced, a heat radiation loss from the hot water tank 41 is suppressed by minimum enhancement heat insulation, and energy efficiency is high.

IPC 8 full level
F24H 4/04 (2006.01)

CPC (source: EP)
F24H 4/04 (2013.01)

Citation (applicant)
JP 2011122752 A 20110623 - PANASONIC CORP

Citation (search report)
• [XYI] US 4320630 A 19820323 - USELTON ROBERT B, et al
• [XY] DE 102004056386 A1 20060524 - STIEBEL ELTRON GMBH & CO KG [DE]
• [XYI] WO 2011025374 A1 20110303 - INVENTUM HOLDING B V [NL], et al
• [XY] JP S5855643 A 19830402 - MATSUSHITA ELECTRIC IND CO LTD
• [Y] EP 2320164 A2 20110511 - PANASONIC CORP [JP]

Cited by
CN105435480A; EP3462103A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2733437 A1 20140521; EP 2733437 B1 20170614; AU 2013257524 A1 20140605; CN 103836790 A 20140604; CN 103836790 B 20180105; DK 2733437 T3 20170724; JP 2014102030 A 20140605

DOCDB simple family (application)
EP 13193291 A 20131118; AU 2013257524 A 20131118; CN 201310586938 A 20131120; DK 13193291 T 20131118; JP 2012253968 A 20121120