

Title (en)  
Refrigeration cycle apparatus and hot water generator provided with the same

Title (de)  
Kühlgerät und Warmwassererzeuger

Title (fr)  
Appareil à cycle de réfrigération et le générateur d'eau chaude associé

Publication  
**EP 2765370 A1 20140813 (EN)**

Application  
**EP 14152911 A 20140128**

Priority  
JP 2013022885 A 20130208

Abstract (en)  
A supercooling heat exchanger 23 is configured such that a heat exchange ratio which is a ratio of a heat exchange amount in the supercooling heat exchanger 23 to a heat exchange amount in a radiator 22 becomes 0.1 or more and 0.6 or less, when dryness fraction of refrigerant which flows out from an evaporator 25 is adjusted to 0.8 or more and less than 1.0. According to this configuration, an amount of gas phase refrigerant which flows into the evaporator 25 is reduced, a pressure loss in a low pressure side pipe is reduced, and excessive rise of discharge temperature of a compressor 21 is suppressed in a state where the evaporator 25 is efficiently used. Therefore, even at the time of a high air heating load, it is possible to realize energy saving and low global warming potential.

IPC 8 full level  
**F25B 9/00** (2006.01); **F25B 40/02** (2006.01); **F25B 41/42** (2021.01); **F25B 47/02** (2006.01)

CPC (source: EP)  
**F25B 9/002** (2013.01); **F25B 40/02** (2013.01); **F25B 47/025** (2013.01); **F25B 2339/047** (2013.01); **F25B 2400/12** (2013.01); **F25B 2400/13** (2013.01); **F25B 2600/21** (2013.01); **F25B 2600/2509** (2013.01); **F25B 2600/2513** (2013.01); **F25B 2700/2116** (2013.01); **F25B 2700/21174** (2013.01); **F25B 2700/21175** (2013.01)

Citation (applicant)  
• JP 2011080634 A 20110421 - PANASONIC CORP  
• JP 2001194015 A 20010717 - DAIKIN IND LTD

Citation (search report)  
• [X] EP 1225400 A1 20020724 - DAIKIN IND LTD [JP]  
• [I] EP 2320165 A2 20110511 - PANASONIC CORP [JP]

Cited by  
CN116465116A; EP3404341A1; CN108870788A; EP3249323A1; EP3312524A4; EP3457049A1; EP3452761A4

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 2765370 A1 20140813**; CN 103983052 A 20140813; JP 2014169854 A 20140918; JP 6161005 B2 20170712

DOCDB simple family (application)  
**EP 14152911 A 20140128**; CN 201410045883 A 20140208; JP 2014020230 A 20140205