

Title (en)

INSTALLATION FOR PRODUCING A HOT FLUID BY RECOVERING WASTE HEAT FROM A REFRIGERATOR

Publication

**EP 0115452 B1 19870603 (FR)**

Application

**EP 84400037 A 19840109**

Priority

FR 8301499 A 19830126

Abstract (en)

[origin: EP0115452A2] 1. Apparatus for producing a heated liquid, such as water supplying apparatus which consumes this liquid such as a warming tank (1), in which the liquid is heated by recycling at least the superheating heat from the vapour of a refrigerant which, to this end, after emerging from the compressor (5) and before returning to the condenser (7) of refrigerating apparatus (2) is diverted towards a main heating station (28) which contributes to the raising of the temperature of the liquid to be heated, which is tapped from at least one source (36) then heated and stored in a reservoir (43) before being sent to the apparatus (1) which consumes it via a distribution means (34) and/or being sent to the entrance to the main station (28) via a channel (44) by passing through a circulator (47), the apparatus for producing a heated liquid being characterised in that : - on the route taken by the liquid to be heated, the apparatus comprises, in addition to the main heating station (28) and upstream therefrom, a pre-heating station (18) comprising a supplementary exchanger (14) which, on the route of the vapours of the refrigerant, is mounted in series with the exchanger (13) of the main heating station (28) ; - the source (36) which re-supplies the apparatus with liquid to be heated is connected to the entrance of the pre-heating station (18) ; - in order to control the diversion of the refrigerant liquid towards at least one of the primary exchangers of the main heating station and the pre-heating station, a plurality of solenoid valves (15, 16) are provided ; - each of the exchangers (13, 14) known as primary, because they are passed through by the refrigerant liquid, penetrates into an enclosure (17, 18) which receives a certain volume of liquid (19, 20) such as water which is only an intermediary liquid between the refrigerant liquid and the liquid to be heated, the apparatus also comprising for the route of this liquid two secondary exchangers (21, 22) which, to this end, also penetrate respectively into one of the enclosures (17, 18).

IPC 1-7

**F24D 17/00**

IPC 8 full level

**F24D 17/00** (2006.01); **F24D 17/02** (2006.01)

CPC (source: EP)

**F24D 17/02** (2013.01)

Citation (examination)

- CH 379093 A 19640630 - CONROTTO DOMENICO [IT]
- FR 2472149 A1 19810626 - LICENTIA GMBH [DE]

Cited by

GB2453170B; GB2453170A; US6729151B1; WO0122011A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

**EP 0115452 A2 19840808; EP 0115452 A3 19840822; EP 0115452 B1 19870603**; AT E27653 T1 19870615; DE 3464092 D1 19870709; FR 2539853 A1 19840727; FR 2539853 B1 19850802

DOCDB simple family (application)

**EP 84400037 A 19840109**; AT 84400037 T 19840109; DE 3464092 T 19840109; FR 8301499 A 19830126