

Title (en)

LAUNDRY DRYER INCLUDING A HEAT PUMP SYSTEM

Title (de)

WÄSCHETROCKNER MIT EINEM WÄRMEPUMPENSYSTEM

Title (fr)

SÈCHE-LINGE COMPRENANT UN SYSTÈME DE POMPE À CHALEUR

Publication

EP 3617392 B1 20220525 (EN)

Application

EP 18191846 A 20180830

Priority

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Abstract (en)

[origin: EP3617392A1] The invention relates to a dryer (1) including:• A treating chamber (3) where items are introduced and treated with a process air flow;• a heat pump system (30) having a refrigerant circuit in which a refrigerant can flow, said refrigerant circuit including a first heat exchanger (32) where the refrigerant is heated up, a second heat exchanger (31) where the refrigerant is cooled off, a compressor (33) to pressurize and circulate the refrigerant through the refrigerant circuit, and a pressure-lowering device; said first and/or second heat exchanger (32, 31) being apt to perform heat exchange between said refrigerant flowing in said refrigerant circuit and said process air; the refrigerant being a flammable refrigerant;• wherein each of said first and second heat exchanger (32, 31):• is a finned tube heat exchanger comprising a tube (40) having multiple sections (41) one above the other and a plurality of fins (50);• is divided in three portions: a central portion (60) wherein said multiple sections (41) of the tube are in contact with said plurality of fins (50), and a first and second end portions (61, 62) where said tube (40) is not in contact with the plurality of fins (50);• and wherein a ratio between a total external volume (TEV2) of all sections of the tube included in the central portion (60) in contact with the plurality of fins of the second heat exchanger (31) and a total external volume (TEV1) of all sections of the tube included in the central portion (60) in contact with the plurality of fins of the first heat exchanger (32) has a value higher than 0.98.

IPC 8 full level

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Citation (examination)

CN 104233735 A 20141224 - HAIER GROUP CORP, et al

Cited by

WO2022018827A1

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