Title (en)

HEAT PUMP LAUNDRY DRYER

Title (de)

WÄRMEPUMPENWÄSCHETROCKNER

Title (fr)

SÈCHE-LINGE À POMPE À CHALEUR

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2015070901A1] The invention relates to a laundry dryer (1) comprising: a casing (2) supporting a drying chamber (3) for receiving a load to be dried; a process air conduit (11) in communication with the drying chamber (3) where a process air stream is apt to flow, a heat pump (30) having a heat pump circuit in which a refrigerant (R) can flow, said heat pump circuit including a first heat exchanger (31) where the refrigerant is cooled off and the process air stream is heated up, and a second heat exchanger (32) where the refrigerant is heated up and the process air is cooled off; said first and/or second heat exchanger being thermally coupled to the process air conduit (11) to perform heat exchange between said refrigerant flowing in said heat pump circuit and said process air stream; said first and/or second heat exchanger (31;32) further comprising a first (10) and a second heat exchanger module (10'), each module (10; 10') including an inlet header (5; 5') to direct a flow of said refrigerant (R) into said module (10, 10'); an outlet header (6; 6') to discharge said refrigerant (R) from said module (10, 10'); and a plurality of heat exchange layers (8; 8') fluidly connecting said inlet (5; 5') to said outlet header (6; 6') to enable said refrigerant (R) to flow from said inlet to said outlet header and/or vice versa; said layers (8; 8') being stacked one above the others in a predetermined stacking direction (Z; Z') and each layer (8; 8') including a plurality of channels (7); wherein said first and said second heat exchanger modules (10,10') are mounted adjacent one to the other and a first heat exchange layer (8) of the first module (10) and a second heat exchange layer (8') of the second module (10) are separated by a gap (g) in a direction incident to said stacking direction (Z, Z'), said first and said second heat exchanger modules (10, 10') including a plurality of fins (50) arranged on both said first and said second heat exchange layers (8, 8') and extending through said gap (g).

IPC 8 full level

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