

Title (en)

Heat pump dryer

Title (de)

Wärmepumpentrockner

Title (fr)

Sèche-linge à pompe à chaleur

Publication

EP 2573253 A1 20130327 (EN)

Application

EP 11182780 A 20110926

Priority

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Abstract (en)

The invention relates to a laundry treatment apparatus, in particular a dryer or washing machine having drying function, comprising: a laundry storing chamber for treating laundry using process air (A), a process air loop for circulating the process air through the laundry storing chamber, a process air heat exchanger (26a) arranged at or in the process air loop, and a heat pump system for dehumidifying and heating the process air, the heat pump system having a refrigerant loop comprising: a first heat exchanger (10) for heating a refrigerant and cooling the process air (A), a second heat exchanger (12) for cooling the refrigerant and heating the process air, a refrigerant expansion device arranged in the refrigerant loop between the second heat exchanger (12) and the first heat exchanger (10), and a compressor arranged in the refrigerant loop between the first heat exchanger (10) and the second heat exchanger (12), wherein the process air loop comprises a process air channel, the process air channel comprising a channel section unit (20d) for deflecting the process air (A) coming from the laundry storing chamber from a vertically downward or an inclined vertical downward direction to a horizontal direction towards the first heat exchanger (10). According to the invention the process air heat exchanger (26a) is at least partially integrated in or is part of said channel section unit (20d) that is deflecting the process air (A), and/or at least a portion or a substantial portion of a heat exchanging interface surface of the process air heat exchanger (26a) is forming a wall portion defining an outer wall section of the process air channel.

IPC 8 full level

D06F 58/20 (2006.01)

CPC (source: CN EP US)

D06F 58/206 (2013.01 - CN EP US)

Citation (applicant)

- EP 0197132 B1 19901227
- JP 2007082586 A 20070405 - MATSUSHITA ELECTRIC IND CO LTD
- WO 2008086933 A1 20080724 - BSH BOSCH SIEMENS HAUSGERAETE [DE], et al

Citation (search report)

- [XYI] DE 102007027866 A1 20081224 - BSH BOSCH SIEMENS HAUSGERAETE [DE]
- [Y] EP 2123823 A1 20091125 - ELECTROLUX HOME PROD CORP [BE]
- [Y] EP 2333149 A1 20110615 - V ZUG AG [CH]
- [X] JP 2004323765 A 20041118 - TORAY INDUSTRIES
- [A] DE 202009005871 U1 20100916 - AUTOKUEHLER GMBH & CO KG [DE]
- [A] EP 0816548 A2 19980107 - CANDY SPA [IT]
- [A] DE 4118289 A1 19921210 - AUTOKUEHLER GMBH & CO KG [DE]
- [A] WO 2010071355 A2 20100624 - LG ELECTRONICS INC [KR], et al

Cited by

DE102017123318A1; EP2801654A1; EP2843112A1; DE102013104680A1; EP3015591A1; KR20160049735A; US10184206B2; WO2017032550A1

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DOCDB simple family (application)

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