

Title (en)

A laundry dryer with a heat pump system and air recirculation

Title (de)

Wäschetrockner mit Wärmepumpensystem und Luftumwälzung

Title (fr)

Sèche-linge avec système de pompe à chaleur et recirculation d'air

Publication

**EP 2586907 A1 20130501 (EN)**

Application

**EP 11187243 A 20111031**

Priority

EP 11187243 A 20111031

Abstract (en)

The present invention relates to a laundry dryer with a heat pump system comprising a refrigerant circuit (10) for a refrigerant and an air stream circuit (12) for an air stream. The refrigerant circuit (10) includes a compressor (14), a first heat exchanger (16), an expansion device (18) and a second heat exchanger (20) connected in series and forming a closed loop. The air stream circuit (12) includes at least one air stream fan (24), a laundry drum (26), the second heat exchanger (20) and the first heat exchanger (16) connected in series and forming a closed loop. The refrigerant circuit (10) and the air stream circuit (12) are thermally coupled by the first heat exchanger (16) and the second heat exchanger (20). The first heat exchanger (16) is provided for heating up the air stream and cooling down the refrigerant. The second heat exchanger (20) is provided for cooling down the air stream and heating up the refrigerant. The air stream circuit (12) includes a recirculation channel (22), wherein an inlet of said recirculation channel (22) is arranged between an air stream outlet of the first heat exchanger (16) and an inlet of the laundry drum (26) and an outlet of said recirculation channel (22) is arranged between an air stream outlet of the second heat exchanger (20) and an air stream inlet of the first heat exchanger (16).

IPC 8 full level

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CPC (source: CN EP US)

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Citation (applicant)

EP 1664647 B1 20110608 - PANASONIC CORP [JP]

Citation (search report)

- [X] DE 4306217 A1 19940901 - LICENTIA GMBH [DE]
- [X] EP 1493860 A2 20050105 - SANYO ELECTRIC CO [JP]
- [AD] EP 1664647 B1 20110608 - PANASONIC CORP [JP]
- [A] US 3739487 A 19730619 - CLARK R
- [A] DE 4023000 A1 19920123 - BOSCH SIEMENS HAUSGERAETE [DE]

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EP2840179A1

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

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**EP 2586907 A1 20130501**; **EP 2586907 B1 20190626**; AU 2012331506 A1 20140501; AU 2012331506 B2 20170330; CN 103946443 A 20140723; CN 103946443 B 20170215; WO 2013064236 A1 20130510

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