

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 B1 20190626 (EN)**

Application

**EP 11187243 A 20111031**

Priority

EP 11187243 A 20111031

Abstract (en)

[origin: EP2586907A1] 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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