

Title (en)
A laundry dryer with a heat pump system

Title (de)
Wäschetrockner mit Wärmepumpensystem

Title (fr)
Sèche-linge avec système de pompe à chaleur

Publication
EP 2594688 B1 20160831 (EN)

Application
EP 11189889 A 20111121

Priority
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Abstract (en)
[origin: EP2594688A1] 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), a second heat exchanger (20) and an additional heat exchanger (22) connected in series and forming a loop. The air stream circuit (12) includes at least one air stream fan (24), a laundry drum (26), the second heat exchanger (20), the additional heat exchanger (22) and the first heat exchanger (16) connected in series and forming a loop. The refrigerant circuit (10) and the air stream circuit (12) are thermally coupled by the first heat exchanger (16), the second heat exchanger (20) and the additional heat exchanger (22). 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 additional heat exchanger (22) is provided for pre-heating the air stream and cooling down the refrigerant. The additional heat exchanger (22) on the one hand and the first heat exchanger (16) or the second heat exchanger (20) on the other hand are formed as one heat exchanger assembly (36) including one air stream channel (34) and one or two refrigerant channels (42; 44, 46).

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Cited by
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