

Title (en)

A heat pump laundry drying machine and a method for operating a heat pump laundry drying machine

Title (de)

Wärmepumpe für eine Wäschetrocknungsmaschine und Verfahren zum Betreiben einer Wäschetrocknungsmaschine mit Wärmepumpe

Title (fr)

Sèche-linge à pompe à chaleur et procédé de fonctionnement du sèche-linge doté de la pompe à chaleur

Publication

EP 2716807 A1 20140409 (EN)

Application

EP 12187443 A 20121005

Priority

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Abstract (en)

The present invention relates to a laundry drying machine (1; 100; 200; 300; 400) comprising a laundry chamber (9) suitable for receiving the laundry to be dried; an air stream circuit (10) for circulating drying air through said laundry chamber (9); a heat pump system (20) comprising a closed refrigerant circuit (30) for a refrigerant. The refrigerant circuit (30) comprises a compressor (24), a first heat exchanger (21), an expansion device (22) and a second heat exchanger (23) connected in series to form a closed-loop circuit. The air stream circuit (10) comprises the first heat exchanger (21), the laundry chamber (9), the second heat exchanger (23) and at least one blowing device (12) for the air. The second heat exchanger (23) is provided for cooling down and dehumidifying the drying air leaving the laundry chamber (9) and for heating up the refrigerant, wherein the drying air condenses at the second heat exchanger (23) generating condensed water. The refrigerant circuit (30) further comprises a refrigerant-to-refrigerant heat exchanger (40) having a high-pressure side arranged between the first heat exchanger (21) and the expansion device (22) and a low-pressure side arranged between the second heat exchanger (23) and an inlet (24a) of the compressor (24). The machine (1; 100; 200; 300; 400) further comprises an auxiliary heat exchanging system (60; 160; 360) arranged between the low-pressure side of the refrigerant-to-refrigerant heat exchanger (40) and the compressor inlet (24a).

IPC 8 full level

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CPC (source: EP US)

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Citation (applicant)

US 2005198852 A1 20050915 - ONO KOJI [JP], et al

Citation (search report)

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- [XAI] EP 2468947 A1 20120627 - ELECTROLUX HOME PROD CORP [BE]
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Designated contracting state (EPC)

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