

Title (en)
METHOD FOR CONTROLLING A HEAT PUMP LAUNDRY DRYING MACHINE

Title (de)
VERFAHREN ZUR STEUERUNG EINES WÄRMEPUMPENWÄSCHETROCKNERS

Title (fr)
PROCÉDÉ POUR COMMANDER UNE MACHINE DE SÉCHAGE DE LINGE DE POMPE À CHALEUR

Publication
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Abstract (en)
[origin: EP3187652A1] The invention relates to a method for controlling a heat pump laundry drying machine comprising a rotatable drum where textile is introduced and treated with a process air (A), said drum being driven in two rotation directions; a heat pump system (44) having a refrigerant circuit (40) in which a refrigerant can flow, said refrigerant circuit including a first heat exchanger (32) where the refrigerant is cooled off, a second heat exchanger (34) where the refrigerant is heated up, a compressor (36) to pressurize and circulate the refrigerant through the refrigerant circuit (40); said first and/or second heat exchanger being apt to perform heat exchange between said refrigerant flowing in said refrigerant circuit and said process air; a cooling device (42) for cooling a component (36) of the heat pump system;- a selector adapted to select alternatively at least an outdoor drying cycle for drying outdoor textiles which have a waterproof and breathable thin film material with a micro-porous structure, and at least an additional drying cycle for drying other types of textiles, wherein the outdoor drying cycle includes an outdoor main drying phase having settings for a frequency of reversion of rotations of the drum and for the heat pump operation and the additional drying cycle comprises an additional main drying phase having settings for a frequency of reversion of rotations of the drum and for the heat pump operation;wherein the method comprises: - selecting and starting the outdoor drying cycle, and entering the outdoor main drying phase, wherein the outdoor main drying phase includes an outdoor first sub-phase (S2) and an outdoor second sub-phase (S3); - reversing the rotation of the drum (16) in the outdoor first sub-phase at a frequency (F1) lower than a frequency in the additional main drying phase; - entering the outdoor second sub-phase when the humidity of said outdoor textile is equal or below a first threshold; - in the second sub-phase, reversing the rotation of the drum at a frequency (F2) lower than the drum rotation reversal frequency (F1) operated in the outdoor first sub-phase; and operating one or more of the following: #c increasing a flow rate of the process air in the drum with respect to a flow rate in the outdoor first sub-phase and with respect to a flow rate in the additional main drying phase; #c increasing a velocity of and/or a power supply to a motor (67) of the compressor (36) with respect to a velocity of and/or a power supply to a motor of the compressor in the outdoor first sub-phase and with respect to a velocity of and/or a power supply to a motor of the compressor in the additional main drying phase; #c increasing a temperature at which the cooling device (42) is activated/deactivated with respect to a temperature at which the cooling device is activated/deactivated in the outdoor first sub-phase and with respect to a temperature at which the cooling device is activated/deactivated in the additional main drying phase.

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