

Title (en)

Method of operating a heat pump dryer and heat pump dryer

Title (de)

Verfahren zur Bedienung eines Wärmepumpentrockners und Wärmepumpentrockner

Title (fr)

Procédé de fonctionnement d'un séchoir à pompe à chaleur et séchoir à pompe à chaleur

Publication

EP 2460928 A1 20120606 (EN)

Application

EP 10193493 A 20101202

Priority

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Abstract (en)

Heat pump dryer (1) comprising a process air circuit and a heat pump unit (5) having a primary refrigerant evaporator (6) for cooling process air (4), a primary refrigerant condenser (7) for heating process air (4), an auxiliary refrigerant evaporator (16) arranged outside the process air circuit and connected between the primary refrigerant evaporator (6) and a compressor (8) of the heat pump unit (5), and at least one auxiliary fan (18) adapted to impinge an air stream at the auxiliary refrigerant evaporator (16). At least one waste heat generating component (25) of the heat pump dryer (1), the auxiliary refrigerant evaporator (16) and the auxiliary fan (18) are mutually arranged so that the auxiliary fan (18) is adapted to impinge ambient air heated up by heat released from said waste heat generating component (25) at the auxiliary evaporator (16), and/or at least a temperature sensor (23) is arranged outside the process air circuit and provided for detecting the temperature of the ambient air around the location where the auxiliary refrigerant evaporator (16) is arranged.

IPC 8 full level

D06F 58/20 (2006.01)

CPC (source: EP US)

D06F 58/206 (2013.01 - EP US); **F25B 30/02** (2013.01 - US)

Citation (applicant)

- EP 0999302 B1 20030820 - WHIRLPOOL CO [US], et al
- EP 1884586 A2 20080206 - V ZUG AG [CH]
- US 2005066538 A1 20050331 - GOLDBERG MICHAEL [US], et al

Citation (search report)

- [AD] US 2005066538 A1 20050331 - GOLDBERG MICHAEL [US], et al
- [AD] EP 0999302 A1 20000510 - WHIRLPOOL CO [US], et al
- [A] JP H01212599 A 19890825 - MITSUBISHI HEAVY IND LTD

Cited by

CN105121730A; CN105021015A; CN102767071A; EP2733254A1; CN104884701A; EP3346046A4; US10689791B2; US10100460B2; US10294605B2; WO2014102073A1; WO2014076159A1

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Designated extension state (EPC)

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DOCDB simple family (publication)

EP 2460928 A1 20120606; EP 2460928 B1 20140226; AU 2011335476 A1 20130411; CN 103339314 A 20131002; RU 2013130011 A 20150110; US 2014033745 A1 20140206; WO 2012072226 A2 20120607; WO 2012072226 A3 20121122; WO 2012072226 A9 20120913

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EP 10193493 A 20101202; AU 2011335476 A 20111128; CN 201180066770 A 20111128; EP 2011005957 W 20111128; RU 2013130011 A 20111128; US 201113991548 A 20111128