

Title (en)
Home laundry dryer with heat pump assembly

Title (de)
Haushaltswäschetrockner mit Wärmepumpe

Title (fr)
Séchoir à linge avec pompe de chaleur pour usage domestique

Publication
EP 2468944 B1 20190220 (EN)

Application
EP 10197041 A 20101227

Priority
EP 10197041 A 20101227

Abstract (en)
[origin: EP2468944A1] Laundry dryer (1) comprising an outer boxlike casing (2) structured for resting on the floor and, inside the casing (2), a laundry container (3) structured for housing the laundry to be dried, and a closed-circuit, hot-air generator (5) structured to circulate through the laundry container (3) a stream of hot air having a low moisture level; the hot-air generator (5) being provided with a heat-pump assembly (11) structured to rapidly cool the airflow (f) coming out from the laundry container (3) for condensing and retaining the surplus moisture in said airflow (f), and then to rapidly heat the airflow (f) returning back into the laundry container (3); the heat-pump assembly (11) in turn comprising: an evaporator (13) and a condenser (14); refrigerant vapor- quality adjusting means (17) structured for adjusting, at refrigerant-outlet of the evaporator (13), the ratio between the amount of refrigerant in gaseous state and the whole amount of refrigerant; detecting means able to measure the current value of at least one physical quantity of said laundry dryer (1) associated to the heat-pump assembly (11) and/or to the airflow (f); and finally an auxiliary refrigerant/ refrigerant heat exchanger (18) which is crossed, at the same time, by the high-pressure refrigerant directed towards the refrigerant expansion device (16), and by the low-pressure refrigerant coming out of the refrigerant-outlet of the evaporator (13), and which is structured for transferring heat from the high-pressure refrigerant to the low-pressure refrigerant so to heat up said low-pressure refrigerant.

IPC 8 full level
D06F 58/20 (2006.01)

CPC (source: EP US)
D06F 58/206 (2013.01 - EP US); **F25B 6/04** (2013.01 - EP); **F25B 49/02** (2013.01 - EP); **F25B 40/00** (2013.01 - EP); **F25B 2500/19** (2013.01 - EP); **F25B 2600/111** (2013.01 - EP); **F25B 2700/1933** (2013.01 - EP); **F25B 2700/197** (2013.01 - EP); **F25B 2700/2103** (2013.01 - EP); **F25B 2700/21151** (2013.01 - EP); **F25B 2700/21163** (2013.01 - EP); **F25B 2700/21174** (2013.01 - EP); **F25B 2700/21175** (2013.01 - EP)

Cited by
US2022057127A1; AU2013396776B2; WO2014206441A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2468944 A1 20120627; **EP 2468944 B1 20190220**; AU 2011351627 A1 20130411; BR 112013016443 A2 20160920; CN 103348056 A 20131009; RU 2013135232 A 20150210; US 2014082960 A1 20140327; WO 2012089585 A1 20120705

DOCDB simple family (application)
EP 10197041 A 20101227; AU 2011351627 A 20111221; BR 112013016443 A 20111221; CN 201180066554 A 20111221; EP 2011073604 W 20111221; RU 2013135232 A 20111221; US 201113997907 A 20111221