

Title (en)

CONDENSER TUMBLE DRYER HAVING A HEAT PUMP AND A RECIRCULATED-AIR PORTION, AND METHOD FOR OPERATING THE CONDENSER TUMBLE DRYER

Title (de)

KONDENSATIONSTROCKNER MIT WÄRMEPUMPE UND UMLUFTANTEIL SOWIE VERFAHREN ZU SEINEM BETRIEB

Title (fr)

SÈCHE-LINGE À CONDENSEUR AYANT UNE POMPE À CHALEUR ET UNE PARTIE D'AIR RECYCLÉ, ET PROCÉDÉ POUR FAIRE FONCTIONNER LE SÈCHE-LINGE À CONDENSEUR

Publication

**EP 4305231 A1 20240117 (DE)**

Application

**EP 22707670 A 20220217**

Priority

- DE 102021202230 A 20210309
- EP 2022053928 W 20220217

Abstract (en)

[origin: WO2022189115A1] The invention relates to a condenser tumble dryer (1), comprising: - a drum (2) for laundry items to be dried; - a supply-air channel (3); - an exhaust-air channel (4), from which a recirculated-air channel (5) branches off, the recirculated-air channel leading into the supply-air channel (3) upstream of a drum inlet (6); - a fan (7); - a heat pump (8, 9, 10, 11), which has a condenser (8) disposed in the supply-air channel (3), an evaporator (9) disposed in the exhaust-air channel (4), a throttle (10), and a compressor (11); - a control device; and - a heating device. The condenser tumble dryer (1) is designed such that, in a drying program carried out therein, moist warm process air from the drum (2) flows, in an exhaust-air channel part (12) delimited by the evaporator (9), substantially in the same direction as supply air in an inlet part (13) of the supply-air channel (3), said inlet part containing the condenser (8), and the process air exiting the drum (2) has a relative humidity  $F_{rel}$  for which the following applies:  $F_{relmin} \leq F_{rel} \leq F_{relmax}$ , wherein  $F_{relmin}$  is a specified minimum value and  $F_{relmax}$  is a maximum value of the relative humidity attainable in the drying program. The invention also relates to a preferred method for operating said condenser tumble dryer.

IPC 8 full level

**D06F 58/02** (2006.01); **D06F 58/20** (2006.01); **D06F 58/38** (2020.01); **D06F 58/48** (2020.01)

CPC (source: EP US)

**D06F 34/26** (2020.02 - US); **D06F 58/02** (2013.01 - EP); **D06F 58/206** (2013.01 - EP US); **D06F 58/24** (2013.01 - US);  
**D06F 58/38** (2020.02 - EP US); **D06F 58/48** (2020.02 - EP); **D06F 2103/32** (2020.02 - EP); **D06F 2103/34** (2020.02 - EP US);  
**D06F 2103/36** (2020.02 - US); **D06F 2105/24** (2020.02 - US); **D06F 2105/30** (2020.02 - EP US); **D06F 2105/32** (2020.02 - US);  
**D06F 2105/36** (2020.02 - US)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**DE 102021202230 A1 20220915**; CN 116981805 A 20231031; EP 4305231 A1 20240117; US 2024167215 A1 20240523;  
WO 2022189115 A1 20220915

DOCDB simple family (application)

**DE 102021202230 A 20210309**; CN 202280019704 A 20220217; EP 2022053928 W 20220217; EP 22707670 A 20220217;  
US 202218549962 A 20220217