

Title (en)
DRYING APPARATUS

Title (de)
TROCKNUNGSVORRICHTUNG

Title (fr)
APPAREIL DE SECHAGE

Publication
EP 1550829 A4 20061227 (EN)

Application
EP 03753945 A 20030925

Priority
• JP 0312189 W 20030925
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Abstract (en)
[origin: EP1550829A1] A drying apparatus has a heat pump apparatus having a compressor, a radiator, an expansion mechanism and an evaporator connected in this order via pipes through which a refrigerant is circulated. The drying apparatus has a structure in which drying air heated in the radiator is introduced into a subject to be dried, drying air obtained by removing moisture or water from the subject to be dried is cooled and dehumidified by the evaporator, and then the drying air is reheated in the radiator to be reused as renewed drying air. The drying apparatus also has a structure in which drain water generated by dehumidifying the drying air in the evaporator is dropped or sprayed into the radiator. <IMAGE>

IPC 8 full level
F24F 3/153 (2006.01); **D06F 58/02** (2006.01); **D06F 58/10** (2006.01); **D06F 58/20** (2006.01); **D06F 58/24** (2006.01); **F24F 1/00** (2011.01); **F24F 13/22** (2006.01); **F25B 1/00** (2006.01); **F25B 30/02** (2006.01); **F26B 9/06** (2006.01); **F26B 21/04** (2006.01); **F28F 1/30** (2006.01); **F25B 9/00** (2006.01)

CPC (source: EP US)
D06F 58/206 (2013.01 - EP US); **D06F 58/24** (2013.01 - EP US); **F24F 3/153** (2013.01 - EP US); **F26B 21/086** (2013.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US)

Citation (search report)
• [Y] GB 2349687 A 20001108 - GLACIATION AIR CONDITIONING SY [GB]
• [DY] JP H07178289 A 19950718 - MATSUSHITA ELECTRIC IND CO LTD
• [Y] DE 4304226 A1 19940818 - MIELE & CIE [DE]
• [Y] DE 4409607 A1 19941027 - MIELE & CIE [DE]
• [Y] EP 0999302 A1 20000510 - WHIRLPOOL CO [US], et al
• See references of WO 2004029516A1

Cited by
WO2007023510A1; EP1811077A1; CN102282304A; CH699018B1; EP1811076A1; CN111527357A; EP3023533A1; AU2015258183B2; ITPR20130106A1; CN113137710A; US2019145043A1; US10494756B2; EP2203585A4; CN114225441A; EP2075368A1; US10240276B2; US11747052B2; US8973413B2; WO2008004803A3; WO2019100122A1; WO2020088847A1; WO2009020311A3; WO2008155263A1; WO2009077336A1; US10928131B2; US9134067B2; US9207014B2; WO2009123402A3; WO2015101860A1; WO2017174766A1; WO2008004802A3; WO2007074040A1; WO2011039251A1

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