

Title (en)  
A LAUNDRY TREATING APPLIANCE HAVING A HEAT PUMP SYSTEM

Title (de)  
WÄSCHEBEHANDLUNGSGERÄT MIT WÄRMEPUMPENSYSYSTEM

Title (fr)  
APPAREIL DE TRAITEMENT DU LINGE COMPRENANT UN SYSTÈME DE POMPE À CHALEUR

Publication  
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Application  
**EP 20169725 A 20200415**

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Abstract (en)  
The present invention is related to a laundry treating appliance (10) comprising: - a cabinet (20); - a drum (30); - a heat pump system (40), using one or more flammable refrigerants, configured for exchanging heat with an operating fluid (50); - a circulating system (60) configured for circulating the operating fluid (50) through the drum (30), wherein the heat pump system (40) comprises a heat exchanger (70a, 70b) comprising: - a plurality of metallic pipes (80); - a plurality of fins (90), stacked, spaced and parallel to one another, each provided with four or more through-holes (100) suitable for housing one of the metallic pipes (80), wherein each of at least two through-holes (101) houses one of the metallic pipes (80) and at least two through-holes (102) of the four or more through-holes (100) of each one of the fins (90) do not house any of the metallic pipes (80).

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Citation (search report)  
• [X] DE 102015120487 A1 20160602 - AKG THERMOTECHNIK INT GMBH & CO KG [DE]  
• [A] EP 3066406 A1 20160914 - BSH HAUSGERÄTE GMBH [DE]  
• [A] EP 3279393 A1 20180207 - LG ELECTRONICS INC [KR]  
• [A] DOMANSKI P A ET AL: "Performance of a finned-tube evaporator optimized for different refrigerants and its effect on system efficiency", INTERNATIONAL JOURNAL OF REFRIGERATION, ELSEVIER, AMSTERDAM, NL, vol. 28, no. 6, 1 September 2005 (2005-09-01), pages 820 - 827, XP004998949, ISSN: 0140-7007, DOI: 10.1016/J.IJREFRIG.2005.02.003

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